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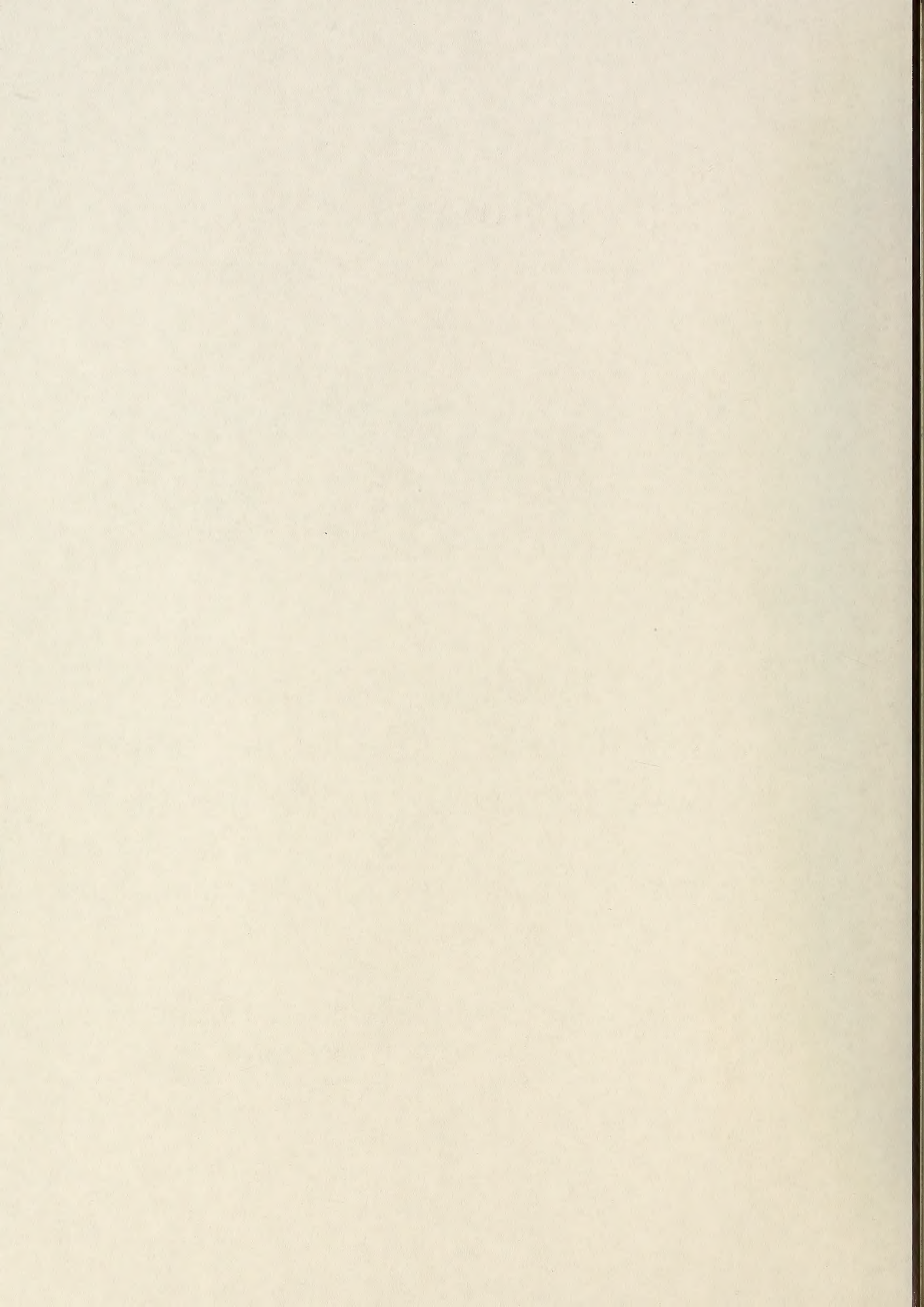
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INTERNATIONAL REVIEW OF EDUCATIONAL CINEMATOGRAPHY

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N. 1.

THE CINEMA IN TEACHING

UTILIZATION OF THE CINEMA ACCORDING TO SCHOLASTIC
GRADES — THE COLLABORATION OF TEACHERS IN THE USE
AND PRODUCTION OF TEACHING FILMS — COMPARATIVE UTIL-
ITY OF SILENT AND SOUND FILMS IN TEACHING AND OTHER
FIELDS — THE TEACHING FILM FOR VARIOUS SUBJECTS
— THE CINEMA AND CHILD PHYSIOLOGY AND PSYCHOLOGY

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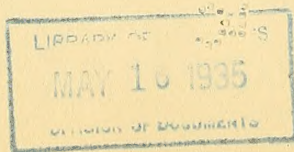
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UTILIZATION OF FILMS IN VARIOUS SCHOOL GRADES

By

Prof. Costantine Kiritzesco

DIRECTOR OF HIGHER EDUCATION AT BUCHAREST.

General Ideas on the Use of the Cinema during Lessons.

THE cinema facilitates the teacher's task by giving him new methods of demonstration during lessons which he may use in combination with those already employed, thereby increasing the value of the latter, for the pleasanter a lesson is, the easier is it to understand.

The film can never be expected to bring about a revolution in teaching methods, but only an improvement.

New ideas are often spoilt by exaggeration, and one of the exaggerations that is gaining some ground nowadays is the belief, expressed in some quarters, that the talking film may eventually replace the teacher. This cannot be the case. An excessive use of the talking film in schools would only end by making teaching mechanical to the point of absurdity, and would be in fatal contradiction with the fundamental principle of the live school which is founded on the direct relation between two intelligences, the master's and the pupil's. It is a relation which must undergo changes and adapt itself to extremely variable circumstances and conditions.

Reducing its utility to due proportions, we find that its value as an educational means is still very considerable. The motion picture is a step ahead of lantern slides, just as the latter were an advance on wall pictures, which in turn represented an improvement on chalk drawings made by the master on the blackboard, which again were something better than merely verbal explanations.

The primary advantage of the motion picture is that it presents a succession of images in continual movement, and consequently shows the pupils the rhythm of natural phenomena. Secondly, it affords them pleasure, which is a great help in all school activities.

The success of the new method depends on the way it is applied. We must therefore keep constantly in mind the vast pedagogic possibilities of the cinema. This means that, starting from certain ideas which are generally admitted in scholastic pedagogy, the respective value of the film, whether silent or sound, must be determined in regard to the various scholastic grades and the different subject matters being taught. It is also necessary to examine the practical possibilities of its application in the ordinary routine of school life. It is only by coordinating these possibilities and adapting them to the pedagogic technique of the lessons that the method can really be made profitable.

In addition to strictly pedagogic considerations, we must take note of a material circumstance which interferes with the application of the school cinema. This is the fact that the installation costs a great deal, especially for sound films, and it is out of the question, therefore, that every classroom or even the larger rooms in every school should be supplied with this expensive outfit. The same difficulty is encountered when it is a question of setting up a film library corresponding to the requirements of the school

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programme. This problem would seem to make any discussion of the subject a merely theoretical one, but it is to be hoped that as the cinema industry progresses we shall eventually have good apparatus at a low price, which would facilitate the spread of the school cinema.

The Cinema During Lessons.

Cinematograph projections during lessons must respond to four pedagogical requirements :

(a) they must facilitate observation of the phenomena of movement in beings and things whenever these are the subject of school lessons, thus making the intuition of life possible;

(b) they must stimulate the action of the pupil's mind, that is to say, they must start the mechanism of his reasoning powers ;

(c) they must call his attention to the real nature of things, thus avoiding a teaching that is too closely bound up with books ;

(d) they must put the pupil in a cheerful state of mind, making study lighter and easier.

It follows that the projection must march as far as possible step by step with the lesson, like demonstrations with the aid of the lantern slide and blackboard. In any case, there is one thing that must be avoided at all costs, namely, too frequent changes from light to darkness and vice versa by the interruption of projections which tires the children and might end by injuring their sight.

On the other hand, we must consider the reverse side of the medal : the fact that the fleeting impressions given by a moving picture prevent the teacher from giving his verbal comment during the projection, however necessary such a comment may be. This means that the projection must be repeated, in part, at any rate. For this reason, it is best to have short projections such as *demonstration films*.

Projections before and after the Verbal Lessons:

Pedagogy requires that the verbal explanation given by the teacher shall be preceded or accompanied by the presentation of objects or pictures which help the pupil's intuition by arousing his obser-

vation, under the guidance and incitement of the teacher. This principle, which constitutes the ordinary course of the phenomenon of intuition, must not be neglected in presenting the cinematograph document.

The brevity of projection *moments* and the rapid succession of images on the screen necessitate a less rigid observance of this formula. It might be followed literally in the case of projections which are so *static* as to be almost like fixed pictures, such as geographical films and, frequently, those dealing with natural sciences. In the other, more numerous cases, a different procedure must be followed : the projection should be preceded by a verbal explanation calling the pupils' attention to the more characteristic passages that will be presented to them. In order that the verbal explanation may be brought as close as possible to the visual demonstration, the projection should be divided into several parts and alternated with the oral comment.

Differential Value and Didactic Utility of Long and Short Projections interpolated by the Teacher's Comments.

From what we have said above, it is obvious that it is necessary to consider two sub-divisions of teaching films in connection with the use of films during lessons : *demonstrative* and *documentary* films.

Demonstration films are short length films, the pictures in which do not exceed a few metres in length and refer to a single fact, a simple phenomenon, a detail, which forms an illustration like the engraving inserted in the text of a book or the sketch drawn by the teacher on the blackboard, but has infinitely greater possibilities. A number of these films might be interspersed throughout the lesson, or the same film could be repeated, according to didactic requirements. The teacher's comment could precede or accompany the projection, according to the case.

Animated cartoons naturally come into this category. They offer a very wide and interesting field for the scholastic cinema,

especially for physical geography, in the formation of plastic images, for instance, the origin and course of rivers, etc.; for mathematical demonstrations and, above all, in geometry for the demonstration of the displacement and superposition of figures representing lines and surfaces, etc. Animated cartoons are also useful for teaching natural sciences, showing the formation of organic tissues by mechanism of invagination and evagination, movements of microscopic organisms, etc.

The documentary film is a long one. In order that it may aid the synthetic understanding of the principal branches of the subject taught, it must be long, so that it may embrace several lessons in one. It is intended to illustrate a phenomenon of a certain amplitude, which is produced on several planes in time and space. It is the film which is commonly used in teaching history.

It can be made use of profitably at the end of a lesson, or at supplementary sittings if it is desired to avoid interrupting the regular class hours, and also with the object of leaving the pupils' minds freer to consider the projection. On the other hand, films of this description go a little beyond the rigorous limits of scholastic films, if the latter expression is taken in the strictest meaning of the words, and form a transitional stage on the way to the educational film, which has no direct relation to scholastic programmes and can equally be shown to the masses for the purpose of training and educating them at the same time.

Whether the film that is being used is a simple demonstrative or a documentary film, the master's comment must always illustrate, complete and accentuate the interest of what has been shown on the screen. This system also fulfils the necessity of having a comment by a competent instructor instead of subtitles that would interrupt the picture.

Projection in Large Classrooms or in Separate Localities. Until the time comes when each classroom has its own apparatus, it will be a good plan to have one or more rooms in each school provided with the

necessary installation, which can be used time by time for the classes that need lessons accompanied by cinematograph demonstrations.

In view of their close connection with the lessons, demonstrative films have a natural place not only in the assembly room of the school but also in the classroom itself. Documentary and educational films, which by their very nature may be said to form the numbers of a scholastic programme, could be more conveniently projected in the assembly rooms reserved for the meeting together of a number of classes, or in halls outside the school.

The programme of such meetings must always be so organized that the films shown to the children gathered together are not above their comprehension, but are based on facts that have already been made known to them during lessons. Otherwise, there would be no difference between school projections and those shown in public cinemas.

Adherence of Films to School Programmes. The use of films as teaching material has an influence on the school curriculum, from the point of view of the *plan of studies* and also of the *time-table*.

Under the first heading, we have to consider the working out of a scholastic film repository or library, in which the films that are to accompany lessons are divided by class, teaching material and subject. This film library should be arranged and set up in accordance with the means at the school authorities' disposal, on a plan previously fixed by the teachers, the principal and the cameraman belonging to the school. Any alteration in the programme must be followed by similar alterations in the film repository. No other system is admissible. In exceptional cases, the possession of an interesting documentary film and the consequent possibility of projecting it may lead to the introduction of a new section into a lesson, but even in this case there must be a natural connection and no forcing of the logical, pedagogical relations between the two.

Adherence to the time-table is of even greater importance. The use of a general classroom for lessons requiring cinematograph demonstrations will inevitably affect the time-table. The fact that the class lesson must be prolonged to allow of the projection should not be allowed to interfere with period of recreation in the open air. It is better to add one or two supplementary hours weekly in the free afternoons, which could be considered as school performances and be given in one of the big common classrooms of the school.

Technical Preparation of Teachers.

New teaching methods necessitate new courses for the preparation of teachers. To avoid unduly burdening the school budget by engaging cameramen, and also to avoid over-taxing the teacher of physics, every teacher should be something of a technician, at least to the extent of being able to work the cinematograph projection. He could learn this work while attending institutions. A few supplementary courses would be quite sufficient to prepare him for this task. The teacher of physical sciences could assume control of the installation, with the aid of a mechanic when possible and necessary, and could act as technical adviser to his colleagues.

Use of Pamphlets and Leaflets to Explain Films.

There is no pedagogical utility in following the custom practised in some cinemas, of giving the spectators a printed explanation of the film. It may be of use then, to give the audience something to do during intervals, or help them to follow a film spoken in a foreign language, and so on; but the school film is quite another matter. Pedagogy requires that the school text be used and the pupil encouraged to make an intellectual effort to understand the film by himself, arriving at this point by his own observation of the things that are being shown to him. By giving him this knowledge or

understanding all ready prepared, we should be going back on all good pedagogical rules and encouraging intellectual laziness in the pupil.

The verbal comments of the teacher are quite sufficient to aid children to understand a film; to establish a connection between its action and their perceptive preparedness and to add a new class of cognitions to those they already possess. The less a child knows of the sequences and end of a picture he is he going to see on the screen by reading about it beforehand, the more attentive he will be to the scenes that are unfolded before his gaze.

A much better system than that of providing pamphlets and leaflets to be read beforehand is to ask the pupils to write a description of what they have seen after the end of the projection, and to give their impressions and possibly a criticism.

The scenarios published by producing firms might in certain cases be useful for the teacher, by assisting him in preparing his oral comment.

Comparative Value of Silent and Sound Film in Teaching.

The sound film is a decided step forward as compared to the silent film from the didactic point of view. Its chief advantage is that by the association of sound, word and music with form, movement and gesture, objects, phenomena and living things are presented in all the completeness and realism of nature.

The sound or talking film can never, of course, take the place of the teacher, or relieve him of so much of his work that he has practically nothing to do. This might happen with lectures, up to a certain point. It is always more satisfactory to listen to the explanations of an authority than to those of an incompetent person charged with commenting on a scientific film. When the film is a strictly scholastic work, however, the explanation must always be suited to the intellectual possibilities of the little spectators, and comment must therefore vary in

each case. Nor must the master be placed in an inactive position. The active method which is the basis of all teaching prohibits such a formidable step backward.

There is one field to which the talking film is particularly suitable: that of the teaching of languages, live or dead, national or foreign. The figure that speaks, showing the characteristic movements of the lips and face that accompany the emission of sounds and word, with the simultaneous registration of the voice that speaks a correct and pleasing phrase, is an excellent pedagogic means, with the addition of the able collaboration of the teacher.

The same may be said of the sound film when it is a question of music, especially instrumental music, in which the movements of arm and finger are seen in direct relation

to the sound. The same argument holds good for physical education.

The sound film, by carrying the cinema to the auditive field, has had the effect of restricting the universal character which the silent film had when it reigned undisturbed in the visual world. It is only those countries which possess a great cinematograph industry that can enjoy the immense advantages of the sound film, and especially of the talking film, to the full. Ignorance of the language spoken in the film makes it impossible for non-producing countries or those which produce little to enjoy the real benefit of such films. In these countries, the school film registering the sounds of nature can be of use, but the talking film is not available for them, except for the teaching of languages and music.

X VISUAL AIDS FOR KINDERGARTENS

(*Editor's Note*). Film methodology and the utilization of the motion picture are subjects that have often been treated by experts, but almost always in connection with grades that go from the elementary to the high schools. No one or very few persons have considered the possibilities of using films for teaching the first grade at all, that is, the kindergarten classes, in which the teacher finds herself in touch with minds innocent of even the most rudimentary items of knowledge, with little beings whose education must commence with the teaching of what is at once the simplest and most difficult thing that exists — the alphabet. With infants, in fact, it becomes more a question of educating than teaching.

THE VIEWS OF AN AMERICAN TEACHER. — Our contributor, Lida ROWLAND, teacher at the Kindergarten class of the Longfellow School of Teaneck, New Jersey U. S. A., a lady who has had considerable experience writes as follows:

Visual education has a very important part in helping to carry out activities in the kindergarten. One of the most direct and effective ways of imparting truths to children between the ages of four and six is through pictures. Personal experience is recognized as the most desirable means, and this is carried out in the kindergarten whenever possible. But much of the course of study is made

of subject matter, which although well within the scope of the child's understanding, would be impossible for it to experience through its own participation.

The children are interested in wild animals. The ideal way to meet this situation is to visit the Zoo or circus, after which, provide the children with pictures, using lantern slides or preferably moving pictures. Here they have the opportunity to study, to discuss and to become more thoroughly impressed with wild animals in their entirety.

The children are interested in the heating of their homes. Through the use of the cinema, they learn exactly how coal is produced from the mines and put into their cellars. They are interested in the way their homes are built and again, through visual aids they are taken to the wood-cutters camp in the forest, then through the lumber mills and so on to the home. In this way many of the units of work, are made real which otherwise would remain vague and wholly outside the experience of the little child — for it must experience for itself or must see for itself.

Visual Aids can make it possible for a number of children to see a picture at the same time. This is of value for it adds to the enjoyment of looking at a picture as well as affords an opportunity for discussion and expression. It also gives an opportunity for training in careful observation. There-

fore, I feel that the Cinema can be of inestimable value in making the Kindergarten subject matter real, interesting, lasting and worth-while.

FILM METHODOLOGY FOR INFANTS. — We shall comment the foregoing briefly. Miss Rowland refers to certain characteristic possibilities in the teaching of infants by the film. As we pointed out at the beginning of this note, it is more a matter of education than teaching, though to some extent the two terms are interchangeable.

One special point that can be made is that for children, in the beginning of their studies, the sound and talking film can offer possibilities that far exceed those to be derived from it by older pupils. The infant is not capable, like the child or youth of criticizing what it sees on the screen, or what it hears through the sound reproduction, since its intellectual and spiritual capacities are entirely undeveloped. The clear explanation of things and the pictured surroundings can give an infant a much better understanding of the subject than the teacher's word.

The commonest sounds are accompanied visually by the phenomenon or being, whether animal or human being, that has produced them. The word, which in the case of infants need not be that of an expert, but should be as simple as possible, will give in a clear and comprehensible way the explanation suited to the childish minds preparing to receive their first impressions in the world of learning.

The cinema has also another great advantage for little ones; it amuses them, renders their instruction pleasant, and makes them like the school and the teacher.

Questions of methodology do arise, however. There is that of the length of the projections. These should be very short, so as not to tire the children's eyesight and cause distraction and fatigue.

Sub-titles must be suppressed because the talking film supplies what they give, while comment should be suited to the mentality of tiny spectators. The pictures shown should deal with the simplest things in life and especially in a child's life with touches that may gradually lead to acquisition of knowledge. Sound and music may be given but not overdone, so as to avoid tiring the infants. There should be just enough to fill out the picture. The didactic lesson should be alternated with short, recreational scenes.

A well edited phonetic film may be shown for ten minutes with scenes containing animals, plants and objects (the *fable* type). Such a picture should be followed by an explanation by the teacher and a lesson, in which the children are asked questions. Run the film over again after the lesson, if necessary, and follow it up by an animated cartoon such as Mickey Mouse. A programme like this will mean giving even the lowest grades the earliest and most delicate opportunities for assisting the teacher in his work by instructing, and by entertaining.

" There are present day forms of life and activity which the press ought to follow closely, forms that once did not exist, but now concern vast sections of society. The cinema is one of these forms, and interests millions of persons of every age and of both sexes "

MUSSOLINI.

THE TEACHER'S COLLABORATION IN THE PRODUCTION AND USE OF DIDACTIC FILMS

BY

Barrier

ASST DIRECTOR PRIMARY TEACHING :

Lebrun

DIRECTOR OF THE NATIONAL CENTRE
OF PEDAGOGIC DOCUMENTATION.

WE do not intend the present note to be a definite report on the question of the collaboration of the teacher in the production and use of the didactic film. Such a report can only be prepared after our colleagues who are assisting at the Congress have had the opportunity to expound to us all their views and suggestions on the subject under debate.

As a rule, such opinions and suggestions are only revealed during the meetings of congresses, and are embodied in minutes or notes without there being any opportunity for a proper study and examination of such points capable of summing up the general opinion of the delegates with sufficient clarity.

We should like our colleagues to consider this note as nothing more than a kind of preliminary scheme, and we should be glad if they would be good enough to communicate to us before the inauguration of the Congress their written observations thereon, either directly, or through the Rome Institute. These observations can be recapitulated and amplified in greater detail and preciseness during the debates. A final report summarizing the opinion of the congressists and not the personal views of the writers of the single reports ought to come as a conclusion to the debate.

Limits of the Present Inquiry. We must first of all limit precisely the char-

acter of our task in order to avoid a duplication of the questions treated by the first commission. In our opinion, it should be the work of the latter, in the matter of a cine-technical preparation of teachers, to seek out the general indications of the method they must follow in recommending the use of fixed or moving projections in teaching. Such indications can include length of the projections, conditions for projections, utilization of explanatory material. The second commission ought rather to settle the pedagogic limits for using the film, subject matters and problems that may arise. It should especially find out from the pedagogic rather than the methodological point of view what the teacher's functions should be in the preparation of teaching pictures and in the editing of explanatory remarks to accompany the preparation which the teacher should undergo. These are all precise definite points which require dealing with.

Stills and Motion Pictures. It is very necessary to recall summarily the

limitations of using still or motion picture projections for various grades and classes.

One of the essential characteristics of

modern pedagogy consists in the progressive substitution of the word by the image, then of the thing for the image of it, so that what is called "the pedagogy of action" may be arrived at. Direct observation of objects is not always possible. The means, the knowledge, and time may be lacking for such observations, as well as the requisite practical work. In such cases, one can usefully have recourse when possible to fixed and moving projections.

The cinema has proved itself often to be superior to our senses as we can see from watching the slow motion projector, the micro-cinematographic reels, while animated cartoons, though somewhat artificial, have given us some valuable information.

Though direct observation may theoretically always be preferable, motion pictures provide a useful means for revising the lessons given in the ordinary practical scholastic manner.

If the cinema can help in developing the sense of observation, the attention and the tendency towards reflection, there are certain intellectual qualities which the cinema certainly does not help, even if it does not work against them. Natural sciences can find a useful ally in the film, but the same thing cannot be said of spiritual sciences. The cinema cannot, generally speaking, substitute direct study, while there are a number of subjects for which its use must be considered as quite exceptional.

The film can never take the teacher's place, if only for the reason that the child always needs a moral authority over it and a guide.

In primary classes, stills and motion pictures provide a precious assistance to teaching, an assistance which is superior to pictures or wall drawings. The sound film permits of making the lesson given by the cinema even more realistic and complex. Thus the pupil will hear the noise of the sea, the rush of the waters of a cascade, the cries of animals, the characteristic noises made by machines and instruments. In no case, however, whether we are dealing with silent

or sound film, can there be any possibility of the moving image taking the teacher's place in primary education.

In a quite different section of the scholastic field, and without wishing to go into matters which are not properly within the limits of our sub-commission, the usefulness of the film in teaching the higher grades is well accepted, especially in such subjects as geography and the fine arts and the study of microscopic objects in biology, or the technique of surgical operations.

We should like to point out that :

— it is the task of pedagogues to recognize and indicate the limitations to the pedagogic utilization of the film ;

— it is their work to establish the organization of such utilization of the film for pupils of different ages, choosing the subjects that lend themselves best to illustration by visual aids ;

— that the film conceived for the study of a given programme must fulfil definite pedagogic requirements which can vary according to the nature of the teaching and the class of students for whom it is intended. The scenario ought to be made for the lesson it accompanies, and should be the work of an expert or an educationist. These persons ought to decide how much of the picture should be given over to exposition, direct observation and practical work, how the use of fixed and animated projections should be apportioned. These experts and educationists ought to take part not only in the work of preparing the scenario, but also in the mounting and other technical operations (taking the pictures, animated cartoons, etc.).

Preparation of the Teacher and his Collaboration in Using the Didactic Film.

The teacher has therefore a most important function in the preparation of teaching films. He ought to possess, in addition to a good general culture and a thorough pedagogic experience, a considerable technical knowledge of cinematography. Such knowledge ought to enable him to collaborate properly with the

film director, putting him in a position to explain the limitations and conditions governing the use of the cinema as a visual aid in teaching.

His collaboration and intervention should be available in the following cases and circumstances :

(a) In the choice of subjects for films, since the teacher knows what subject matter and which particular classes can best derive advantage from visual aids.

(b) In preparing the scenario. Only a pedagogue can know what it is desirable to film and what to leave to direct observation for comment and explanation in any particular scenario.

(c) Mounting. It is the teacher's task to stop the film at a given moment, to interpose in it, if he deems fit some slides. He must be in a position to insist that certain details be "shot" over again, and other details elaborated : all this in consideration of the pupils' age, their degree of knowledge and their intellectual possibilities.

(d) During the actual making of the picture, the teacher must act as the close collaborator of the film director. He will explain what he wants, so that technique and pedagogy will between them produce a teaching picture.

Cinema Technique for the Teacher.

It can be seen from the foregoing considerations that it is necessary to train in a special way those teachers whose work is partly to lie in the direction of collaborating in the making of didactic films. It is indeed because insufficient attention has been paid to this point that many educational pictures do not suit the purpose for which they were made.

In the same way that collections of scholastic manuals can be published under one management or direction which gives all the publications a certain unity of spirit and method, so collections of scholastic films should have a single source of inspiration. In the case of films as with the manuals, indeed even more so in the case of the films, it

is necessary that one at least of the persons responsible for the making of the picture should have an exact knowledge of the requirements of the pupils, the nature of their minds, their probable reactions, the details of their curriculum and their capabilities in adapting themselves to different scholastic courses.

In higher class teaching, the teacher can act as absolute master of the situation and assume entire responsibility for the scenario. In elementary school teaching, it would appear advisable that at least two teachers edit the scenario. One of these teachers should bring to the collaboration his experience with children, while the other who should preferably belong to the second grade teaching staff, ought to be a specialist in the particular subject which the film treats, and should lend it the benefit of his authority and scientific knowledge.

Films Should Follow Lines of Scholastic Curricula.

Teachers should insist that didactic films follow closely the exact requirements of the teaching.

Today, for reasons that more often than not are commercial, that is, to allow a film a wider circulation and also because the *régisseurs* are not always specialized teachers having a current knowledge of the scholastic curriculum and the pupils' needs, it happens that so called scholastic pictures are not made specially for the instruction of a particular grade or class. If their makers state they are suitable for several courses or grades, it will turn out that they are useful for none. This is the case with those documentary films which can very well be projected in their entirety, since they have a real general interest, but they are far from being the kind of visual aids desired by teachers.

Special Course in Cine-Education for Future Teachers.

We may say that some teachers ought to collaborate very actively in the formation of teaching films, and that all teachers should do their best to secure the

utilization of these films. This they can do not only by knowing how to project them and by introducing them into their teaching in the most profitable fashion, all of which presupposes a certain training in the methodology and technique of film teaching, but also by showing themselves capable of reacting to the projections and of provoking critical and interpretative reaction on the part of the pupils.

What we want and must insist on having is a pedagogic and technical training for our teachers which they should receive in normal schools and pedagogic seminaries, not only during the various course of optics, electricity, methodology, etc., but also during practical lessons in laboratories and handicrafts schools. For teachers, who have already some experience, it would be well to organize lectures and courses in theory and practice on special days during week or month. A similar system could be adopted for teachers of secondary and middle grades who require clear and definite instruction on the use of lantern slides and motion pictures.

This kind of lesson will enable the teachers to familiarize themselves with motion picture cameras and their working, the various ways of making "shots" such as long "shots" semi-close-ups, and close-ups, the slow motion camera and the accelerated running off of a film, micro-cinematography, sound and talking films, animated cartoons and many other details. In this way the taste for the cinema will be developed and encouraged. The teacher will begin think in terms of a scenario as something to offer to a film producer, just as an author thinks of his manuscript as something to offer to a publisher. In this way the question of specialists will arise.

Just as a real cartographer must be primarily a man very well versed in geography so as to avoid any risk of being merely considered a simple draughtsman, so the cinema specialist must possess proper professional qualifications. He ought only to be admitted to the technical courses at a Normal Teaching School after having undergone

tests or examination of his capacity at the hands of some official body.

This Cinema Teaching Normal School ought to form part of the higher education system, and be a regular forcing-ground for those who will be called upon to produce for the State and private firms according to the country they live in, films capable of satisfying the exigencies of the teaching profession.

Some cinematograph schools have already been opened in certain countries, and courses of lessons have been organized. Such initiatives should be encouraged, especially those among them which deserve the confidence of teachers. It would be well, however, to examine the possibility of establishing in every country a Normal Cinema School, where the admission of students would be hedged about by strict rules and the number of pupils limited so as to prevent any distribution of diplomas to pupils who would afterwards expect to obtain posts beyond their reach. An international Normal School is another possibility. Here the future cinema teachers would be brought into touch with the productive machinery of other countries, would see foreign films, and have the benefit of the best scientific, technical and literary training.

General instruction for the bulk of teachers; a selection, choice of profession and a superior technical cinematograph instruction for the best qualified, a development of their culture in the branch to which they intend to devote themselves: here we have a list of measures which would in a short time raise the level of the teaching film.

It is evident that this special training for the mass of teachers and the specialists ought to include not only the cinema but all the auxiliaries of the film, such as lantern slides, gramophone discs, sound ribbons and sound tracks, while the teachers ought to be able to use, discuss and supplement the reports, instructions or booklets of an explanatory nature sent with films.

The teachers' interest for the critical study of the films placed at their disposal would run the risk of soon vanishing if their reactions

were allowed to remain without effect, if they did not have the chance of making them known and collaborating in the progress of the teaching film. One of the principal tasks of the distribution of films service would therefore be to arouse criticisms and reactions, to encourage experiments and create centres for the pedagogic study of the film.

Perhaps we shall find that some interesting results have already been obtained on

these lines, and it is to be hoped that we shall learn of them in notes and communications containing precise details. It is logical to hope that the Congress will cause a wide divulgation of experiments made in different countries both in the pedagogic and the general field, and that all will bring their collaboration to the international work which has been taken up by the Rome Internazionale Institute of Educational Cinematography.

Longum iter per praecepta, breve per exempla.

SENECA.

... ut qui litteras nesciunt, saltem in parietibus vivendo legant quae legere in codicibus non valent.

ST. GREGORY THE GREAT.

THE SOUND AND TALKING FILM IN TEACHING

(*Editor's Note*). Our contributor, Mr. F. L. DEVEREUX, Vice-President of *Erpi Picture Consultants*, the organisation attached to *Electrical Research Products* of New York, has sent us some reports drawn up by American teachers on the possibility of utilizing the sound and talking film in teaching, which complete the subject under examination in all its essential aspects.

A brief sketch of the reports will give an idea of the way that didactic methodology is proceeding on the other side of the ocean in regard to the solution of the most important problems connected with a more extensive use of visual auxiliaries.

The researches, to which these reports refer are the direct result of a series of previous studies made by American teachers. One of them, Mr. N. L. Engelhardt, teacher at the Teachers' College of Columbia University, points out that special mention is due to one of the pioneers in this sector, Professor Freeman, who, in an article published in the *Journal of Educational Psychology* in 1932 on *Research vs. Propaganda in Visual Education*, strongly advocated the necessity of making minute research into the use of all visual auxiliaries with the object of discovering by practical experiment the rational way of using such auxiliaries and thus avoiding any possibility of error. Researches of this kind were afterwards made on a large scale, on the lines suggested by Professor Freeman ; and they led, among other things, to the valuable publications of Philip J. Rulon in *Sound Motion Pictures and Science Teaching* published by the Harvard University Press in 1933 ; V. C. Arnspinger, *Measuring the Effectiveness of Sound Pictures as Teaching Aids* published by the Publications Office of Columbia University ; and Frederick L. Devereux *The Educational Talking Picture* published by the University of Chicago Press in 1933.

These studies, and other minor ones, do not refer to the general teaching of didactic subjects by means of the film, but deal specifically with the didactic use of the sound and talking film.

They deal with experiments which form a milestone on the road of scientific research, because their conclusions are not founded on simple suppositions and theories, which often cannot be put into practice or are contradictory, but on serious inquiries conducted in regard to numerous groups of pupils, in different school courses and in different didactic or scientific fields of experiment.

In any case, the problem might arise, in connection with one and the same subject, the same course, a number of children with an identical mental and psychological development, of having to compare the varying utility and greater or less comprehensiveness, the efficacy, in short of the sound or talking film with that of the silent film on the same subject, logically, completed in the latter case by a more ample explanation or comment on the part of the teacher to supply its inevitable deficiencies. Contrast is the only real ground of comparison. Not because contrast must be considered as a pure and simple negation of past and far-off things, but because the possibility of a revision of ideas, concepts and facts may be shown most clearly by its means.

Several experiments have been made, in every part of the world, with the system of making comparisons by means of parallels between sound and talking films and the silent film. These experiments, however, were limited and incomplete so far as regards their reference

to class courses, the mentality and psychology of the children, the subjects taught, the method of presenting and commenting on the films, and especially in relation to other visual aids, which were not taken into consideration, such as maps of the world, models, wall pictures, lantern slides, stereoscopic views, visits to places and so on.

In order that we may have an exact conception of this subject, therefore, these comparisons should be made with a hundred per cent exactitude and parallel. It is only in this way that a real definition can be reached.

These are problems that the Congress is once more asked to solve. But they must first be examined with the greatest care if the Congress is to be in position to fix the future of didactic methodology in regard to visual auxiliaries. It can do this only if its conclusions are deduced from facts, not from simple verbal assertions which have no real value.

PROBLEMS INVOLVED IN THE DEVELOPMENT OF EDUCATIONAL TALKING PICTURES

From the report of Mr. N. L. ENGELHARDT, teacher of Education at the Teacher's College Columbia University.

In a report on the subjects to be treated at the forthcoming Congress Professor N. L. Engelhardt, points out that the continuous development of supplementary instructional aids in oral and written teaching have made it necessary to enrich the didactic material possessed by the American schools.

Auxiliary visual materials include stereoscopes, stills, as well as the silent and sound film.

In the elementary schools particularly, the new movement in what is called "the activity program" has tended to bring into the schoolroom as much realism as could be done under the limitations of space, time, and the accessibility and availability of the materials in question. The marked tendency has been to provide these instructional materials as supplementary to the services and scope of the work rendered by the teacher himself.

The talking educational picture is in no sense considered to be a substitute for human teaching service. It endeavors to render service in the field in which the classroom teacher naturally has limitations. In other words, in this program of realism the talking picture plays a significant part in transcending the limitations of time, space, and magnitude which circumscribe the work of the immediate human teaching service.

What are the principal questions that arise from the introduction of films in their various forms into school life?

First of all, there is the question of the kinds of subjects for which the film can be considered as a useful or necessary adjunct in teaching.

There is also the matter of the making of these scholastic films and their presentation to the pupils,

for each picture has a character and style of its own different to all others.

The film then cannot be a didactic unit of a free and autonomous character. In making any film, we must look at the subject which it is proposed to represent and the way it is to be represented. We must also consider if the film can really offer the teacher a greater advantage and help than other visual aids in general use in schools. It is only in this way by means of a careful comparison that we can take the exact measure of the value of our didactic material and establish definitely what the programs of study should be and what modifications existing programs require.

There is also the matter of production which must be considered from the technical and not only the mechanical side. Technical in the sense that the film must be adapted to the understanding of the various scholastic grades, to special psychological conditions of pupils and to the acoustic condition of the class-rooms.

All this goes to show that the making of an educational picture, especially if it is a talking picture, and its adaptation to a curriculum are not matters which can be lightly treated, but require, on the contrary constant research and a special attention to each particular case.

It is significant to note that educational talking pictures have been in the process of production, over a period of four and one-half years in the United States, under the direction of Colonel Frederick L. Devereux of Erpi Picture Consultants, Inc. Working under this leadership, a group of educators of extensive training and wide experience has made

what may be considered a most worth while contribution to the development of this new field of instructional service.

CHOOSING SUBJECTS. — In view of the continually varying character of the subjects that make up curricula perhaps the most difficult thing is to choose the subjects most suitable to the aims of the scholastic program and the teacher or educationist. This implies a minute and careful work of study and research in all branches of teaching.

Once the field of operations is selected, intensive surveys must be made all the courses of study. Intensive surveys of this kind must be constantly under way if a program of talking pictures production is to be advanced consistently and harmoniously within the sum total of the educational offerings. Outstanding studies of this kind are those by H. A. GRAY (*Social Science and the Educational Sound Picture* in *Historical* XXIII May 1932 and by Melvin BRODSHAUG in his *Science Survey* issued in mimeograph form by *Erpi Pictures Consultants Inc.* in 1933).

For example, Brodshaug in "Science Survey" listed the following objectives as those which appeared most frequently in the courses of study and other educational pronouncements concerning science to be taught in the elementary schools.

To have a love for nature,

To form the habit of accurate observation and investigation of natural phenomena,

To realize the duty of conserving desirable plant and animal life,

To appreciate the vital place of science in the community and its bearing upon national progress,

To acquire healthful recreational habits through contacts with nature,

To learn reverence for the universe,

To realize the inviolability of nature's laws,

To attain ability in drawing conclusions,

To learn to know a few common plants and animals in relation to environment,

To appreciate beauty in form, color, texture, sound, and nature in general,

To appreciate the references to nature in literature, music and art,

To understand how man is gaining control of his physical and living environment,

To build character,

To know a few phenomena of earth, air and sky,

To acquire a realization of the interrelation of man, plants, animals and inorganic phenomena.

After the objectives for a field of study have been ascertained, the selection of a particular topic or phase of teaching must be made. This selection

should be based very largely upon frequency of appearance in the various courses as well as upon a jury of expert judges in the specialized teaching field. Only on the basis of such an extensive study is it desirable to decide upon the selection of a topic to be produced as a talking picture.

BRANCHES OF TEACHING. — Once the subject of the film has been chosen, we must decide in what branch or unit it can be used. Here psychological factors come into play in view of the fact that not all films, however and by whom produced, are suitable for all children of all ages and classes.

The choice of the branch and class for the use of the film is one of the most delicate problems facing the educationist and the methodologist. The teaching unit in which the film is placed constitutes a valuable guide for the teacher, when he in his turn is called upon to illustrate all the details of the picture and make such comments as he deems desirable for the pupils.

SCENARIO OF PICTURE CONTINUITY. — No satisfactory picture can be reproduced except as the result of an intimate analysis of a unit of instruction and the determination of those materials in the unit which lend themselves most constructively to screen and sound reproduction. Special workers must be trained to visualize in advance the relationship between the screen effects and the results obtained from the printed page. This highly technical aspect of production must be subjected to definite standards which define the character of the scenario and the careful grading of teaching devices.

THE STUDY GUIDE. — It also seems desirable that a study guide should be prepared for teacher and student, or both, which may be utilized by the student before and after the sound picture itself is reviewed. Such a study guide reproduces for the student speech and picture content so that he may have a complete description of the materials which are being presented to him in the picture entity. Such a guide may be amplified with footnotes and references which stimulate further study and significantly contribute to orienting the student in the reality of the subject matter itself.

VALUE OF THE EDUCATIONAL TALKING FILM. — It is only when the rules and standards indicated have been followed that it is possible to consider the real value of the completed product.

The educational value of the film can be considered in relation to its organic development and in a just observance of the relations existing between the type of dialogue used and the audience for which it is intended. Due account must be taken of illumination, synchronization and volume of sound in reproduction.

In measuring the effectiveness of an educational talking picture, its contribution to the general field of educational curriculum should be analyzed as well as its general value to related fields of study. Sound pictures which are entirely separate from desirable school curricula are of very little use in the promotion of an educational program. Every talking picture should also be measured with due reference to its general effectiveness both as a teaching device as well as an instrumentality which leads

to higher and better appreciations in general fields of human activity.

Professor N. L. Engelhardt points out that the questions he discusses only constitute some of the aspects which we must take into consideration in using the talking film in the didactic and educational field. Many other problems have to be faced and more will present themselves as time goes on. These will all have to be carefully considered and valued. Progress will have to be by steps. More than four and a half years use of the talking film in education have shown that it has an important and lasting place in social life and that educationists ought to know how to appreciate its merits and usefulness if they want the educational film in general to assist the progress of mankind.

THE USE OF TALKING PICTURES IN THE ELEMENTARY SCHOOL

Mr. JAMES A. Brill of Erpi Picture Consultants Inc. forwards us the following report dealing with themes under consideration by the Cinema Congress.

Interest in the utilization of talking pictures in the elementary classroom has shown steady growth within the past two years. This has been due in part to the rapid development of really educational films, and in part to the improvements in projection equipment.

Of no little significance in this development was the initial enthusiasm with which the first educational talking pictures were received by the school field. Opinions of educationists amounted to a consensus that the talking picture would "bring the world to the class-room, would be a most realistic vicarious experiment, and would greatly aid in the pupil's development of concepts, attitudes and appreciations", while it was at the same time asserted that "the vividness of its style of presentation would increase the effectiveness of learning".

Endorsement for certain of these subjective prophecies regarding the new medium has been given by the results of objective studies, while further experiments have demonstrated that the wide-spread use of the talking picture in our national schools will prove a virtual necessity if their potential qualities are fully to be realized.

The first few years of experimentation have shown that the objectives of the talking picture as an educational medium must be clear, valid and of

proper scope for the course of which the picture is a part. Picture, sound and content must be appropriate, accurate and thorough.

Technical audio-visual elements must conform to the best standards of photography and sound recording.

To achieve these standards the development of a worth while educational picture begins with the analysis of subject matter and the grouping of these topics into instructional units. From these are then sifted out those topics which can best be attained in talking pictures. They are regrouped into continuity form, and this is checked by both educational and production specialists.

Supplementary printed matter is prepared to make the most effective use of the picture in the class-room.

Regardless of the size of the school system, the audio-visual program must include administrative services, directing and coordinating the various educational and mechanical services. The educational services include general supervision, instruction of teachers in use of the medium, integration of sound pictures with the curriculum and the selection of sound pictures. The mechanical services include delivery and operation, clerical work and storage and repairs.

The greater part of scholastic edifices in America require, as has been mentioned, a quite special equipment which is beginning to be largely used in view of the fact that it is not possible to use for the projection of talking pictures halls only built for silent pictures. The very acoustic qualities of these old halls is not suitable. Such building provision has already been made in several localities, notably in the new junior high schools in Providence, Rhode Island. The significant feature of such halls or rooms are: proper acoustic treatment of walls and ceilings, adequate projection booth, picture screen and sound amplifier, screen placement in correct relation to eyes of pupils; provisions for optimum light regulation and convenience for film storage.

The list of essential points necessitated by the installation of talking picture apparatus in school may be briefly summed up according as to grade and according to the nature of the work of the teacher and the requirements of good technique.

As far as the teacher is concerned, what is required is:

(a) the teachers's proper acquaintance with the use of visual aids;

(b) the utility of the film in the particular course or lesson under consideration;

(c) the film to form part of the didactic curriculum and not merely serve to illustrate extra-curriculum subjects;

(d) the precise degree of utility of the film as a visual aid should be determined;

(e) due account should be taken of the special characteristics of the sound film such as its different technique.

Mechanical problems involved in the class-room operation of talking pictures equipment are simple and easily mastered by the teacher, or even by pupils on the upper elementary levels. Given a few outlet electrical connections, the securing of operating power is as simple as plugging in a bridge lamp or an electric toaster. A very little practice renders easy the process of "threading up" and rewinding film. When sound-on-disc is used; synchronization of sound is achieved by first placing a portion of the film marked "start" in the projector aperture, and then setting the needle of the tone-arm on a similarly labelled groove in the sound disc. Sound level once regulated is as automatically controlled as focussing the film.

Most important of all aspects of the educational use of the talking picture is an appreciation of the teacher of the peculiar contributions which the talking picture can make toward the educational outcomes desired. The talking picture is effective not only in direct learning, but also in stimulating the pupil's critical thinking and in fostering his desire to carry his study further and into related fields. Because of the reality of impressions gained from the talking picture, it is a power in developing attitudes and appreciations. The teacher should be aware of this potency and should coordinate accordingly.

TALKING PICTURES IN PRIMARY EDUCATION

Mrs LAURA KRIEGER EADS, Ph. D., *Research Associate of Erpi Pictures Consultants Inc. reports to us as follows.*

The pre-school child is a questioning child — he explores his immediate environment, and plies his listeners with innumerable questions concerning the things he observes. His curiosity increases as his environment expands. He is eager to learn, and looks forward to any new experience which may extend his intensely interesting little world. Thus he enters school.

Does the primary school enrich the environment of the primary school child? Does it foster increased interest in the things about him? Or does it attempt primarily, to teach the tool subjects which will aid, after their mastery, in enlarging his world? Does the young pupil feel that his school life is quite separate from his out-of-

school existence, where he learns about things in which he is really interested?

Progressive schools definitely aim to provide the pupil with experiences which will aid in his understanding and appreciating his immediate environment. In such schools we find an aquarium, a window garden, a library table and a stereopticon machine. Pupils are taken upon numerous excursions in order to increase their experiences. The aquarium, however, may reveal a most valuable and interesting phenomenon while the pupils are out of the class-room; pictures, models or objects brought into the class-room are divorced from their original setting; the printed word is a cumbersome, often meaningless medium for the

primary child, while "stills" are inadequate where movement is an integral factor. Excursions, moreover, may be time-consuming and expensive, and the pupils are likely to receive unsatisfactory impressions of many of the phenomena experienced.

The educational talking picture had advantages far superior to those of the ordinary visual aids. It guarantees within a comparatively short period of time a vivid and accurate portrayal of important persons, places, objects and events. It is not limited by the boundaries of time or space, and can utilize the combined effects of those important senses — sight and hearing. Such films are receiving a special impetus in the higher grades, but how much more valuable can they prove in those grades where the printed word has least influence — the primary grades!

Recognizing the need for sound pictures in the primary grades, research has been conducted in order to determine what subjects best lend themselves to production at this level. The following conclusions have been arrived at:

Primary children are interested first in the immediate environment — home and immediate community — with a gradually developing interest in factors outside their local communities affecting their lives.

There is indicated a developing interest in natural objects and natural phenomena and in human beings in the primary grades.

Since the investigations in children's interests indicated the importance of the natural and the social sciences in the primary grades, analyses of recent courses of study in these two fields were made. Following is a summary of those objectives which can probably be achieved with the aid of educational talking pictures in the primary grades:

- attracting attention to immediate environment;
- fostering increased interest in immediate environment;
- stimulating powers of perception and observation of immediate environment;
- enlarging the immediate environment;
- aiding in the cultivation of a social sense;
- developing an historic sense;
- developing, understanding and appreciation of people in other communities and of other lands;
- cultivating an appreciation of interdependence.

The researches undertaken in all forms of utilization of the film have led educationists, including ourselves, to lay down the subjects which may be considered most useful and interesting for talking pictures.

It became a point of finding out if some of the

pictures made for the intermediate grades of scholastic life could be adapted to the primary grades. It was considered advisable, in order to arrive at a definite conclusion, to carry out an experiment which took place between the pupils of two different schools.

The pupils in each of the primary grades were presented with one of the following four talking pictures: *The Frog*, *Plant Growth*, *the Dodder*, and *Fungus Plants*. Before each representation the pupils were asked questions concerning the subject of the picture in order to determine their initial knowledge. No other introduction was made. Immediately after the presentation, the pupils were asked to tell the story of the picture.

A questionnaire was sent to the parents the week following the picture presentation.

The questionnaire results indicated that the primary grade pupils on the whole were very much interested in these educational talking pictures; those in the second and third grades considered it a high-spot of the week's school activities. Other points and results appeared in the course of the experiment. If some explanations had been given beforehand to the pupils on the photographic processes used, on micro-cinematography, the slow motion camera, accelerated running of the film, etc. the scholars would have derived greater advantage, and many erroneous impressions received by the pupils would have been obviated.

Natural history films in particular require an inquiry into the pupils' knowledge in that field and also a careful explanation by the teacher. The experiment showed the utility of explanatory leaflets, both for teacher and pupil. Presentations of the talking picture may correct mistaken ideas, stimulate discussion and crystalize concepts gained from study of the unit.

It was proved that the film should be presented in a clear fashion with clear comment. It was also plain that:

- (a) the picture material should clearly stimulate the attainment of the primary grade objectives and be authentic without giving undue stress to story-book costumes;
- (b) that the lighting should be suited to the projection and the picture-making perfect, while the same format should be used to avoid distracting the pupil;
- (c) scenes not to be too long;
- (d) natural or dubbed sound should be used wherever practicable;
- (e) there should be a generous use of repetition when it seems advisable or necessary.

SOUND PICTURES AS A FACTOR IN CLASS SIZE

From the Report by A. J. STODDARD Superintendent of Schools, Providence, R. I., U. S. A.

The question of class size has been and continues to be one of the most perplexing problems in educational administration. Back in the first half of the 19th century when the Bell and Lancastrian schools flourished, it was not uncommon for one teacher to instruct several hundred pupils. The monitorial system was used, the teacher instructing a small group of the older and brighter pupils, who in turn carried the instruction back to the class broken into small groups. The teaching process was largely on a drill or memorizing basis, and the individuality of the child was neglected and sometimes even suppressed. In fact, the schools had a short life, and were done away with in 1850. This was natural enough for schools at that time were deficient in classroom equipment and didactic material. Text-books were crude and even the buildings were inadequate and restricted.

Nor should we forget the financial factor. Teaching costs, and in those times the number of the teachers, the school buildings and the equipment were not in relation to the population but rather depended on the financial possibilities of the district. Always the teachers and administrator were endeavoring to reduce the number in each class without any adequate basis of determining just how large the instructional group should be.

A few generations ago, it was not uncommon to find elementary schools with sixty in a class. Gradually the size of classes became smaller until in 1929, before the depression reversed the tendency, the following sizes were accepted as about the standard: elementary, 40; junior high school, 35; senior high school, 30. So generally established were these standards that class-rooms were constructed to accommodate the number indicated.

This tendency towards smaller class sizes in the last generation or two seems paradoxical until it is analysed. It has given excellent results, and the teachers themselves have increased their capacity to teach and improved their methods.

We must remember that new pedagogic systems insist on the pupils' individual faculties being developed. Classes composed of 40 scholars permit the teacher to look after his pupils as he will, in small groups, or even one by one.

There is another phase of this question of class size. The child may acquire the raw materials of learning through the senses, that is he may secure

the sensations that form the basis of perception and understanding, but learning does not result until the child himself does something worth while with these materials of learning.

Now let us consider the implications of this theory of learning upon class size. If the interest of the child can be held, it may be possible to secure a high degree of attention from him even when he is a member of a large group. This may be merely a question of discovering and using devices that will cause him to concentrate his attention on what is being seen or heard, so that the proper sensations are received. Yet they must be so received that the child, either then or later, is impelled to do something with them, either mentally or physically, or both.

Teachers have already decided that the instructional group should not necessarily be the same size for all learning situations. It may be desirable at times to teach the class as a whole, while under other conditions it may be much more efficient to break the class into groups, and consider the pupils individually.

The coming of the sound pictures and radio have brought up the question of class sizes into educational administration, and may make possible decidedly different procedures.

It was with the purpose of securing some objective evidence on the question of the extent to which sound pictures may be a factor in determining class size that a comprehensive experiment was conducted in the public schools of Providence, Rhode Island in the spring of 1933. Arnsperger had conducted an extensive experiment the year before in measuring certain phases of the effectiveness of sound films as teaching aids, the films having been produced for instructional purposes on the elementary and junior school levels. The Providence experiment was decided on, and nine class groups were used. There were:

- (a) three experimental groups of about 150 pupils each;
- (b) three large control groups of the same size and;
- (c) three small control groups of about 40 pupils each.

The nine groups were chosen from the sixth grades of the city schools and were matched, as nearly as possible, as to intelligence, social back-

ground, age and educational achievement. Nine teachers were provided who had no other teaching duties during the experiment. Six units of instruction were used as the basis of the experiment, three in science and three in music. The sound pictures were based upon the subject matter of the units. Each subject was taught for five days, and for thirty minutes each day. The experimental groups only were given the aid of the sound picture; the other groups took the same lessons using other didactic aids.

The question to be settled was: *if it is possible through using the sound picture to obtain the same didactic results with a class of 150 pupils as with a class of 40?*

The experiment was not directed so much to establish the value of the sound picture itself, as to see if the talking and sound film would allow of the number of the pupils being increased without detriment to the instruction.

If it became possible to establish as a result of the experiment that the groups of 150 which utilized the sound film obtained the same result as the groups of 40 without the film, the obvious conclusion could be drawn that the introduction of the sound picture permitted the number of pupils to be increased.

The results of the experiment, as taken from the registers of the teachers of the groups, were as follows. The average of the initial points of the three sectors was as follows:

Experimental Groups	45.0
Large Control Groups	43.3
Small Control Groups	45.8

Average of final points:

Experimental Groups	89.4
Large Control Groups	82.7
Small Control Groups	88.2

Final average on principal points:

Experimental Groups	44.4
Large Control Groups	38.9
Small Control Groups	42.4

The result is clear. The experimental group showed an advantage not only over the control groups, but also over groups which had a much smaller number of pupils.

The deduction may be made: that sound films can be considered as a real and valuable factor for increasing the number of pupils in any class, and are therefore capable of providing a solution to a difficult methodological problem.

WILL SOUND PICTURES REMAKE THE CURRICULUM?

From the report by Mr. PAUL MORT, Professor of Education at Columbia University.

Mr Paul R. MORT, of Teachers' College, Columbia University points out that one of the most notable phenomena of our time is the development in the use of sound and talking films, not only in the mere educational field but also in the school.

Some of the areas in which a simplified and more inclusive medium of communication may have great significance are:

- (1) the carrying out of the educational process prior to the attainment of the facility to read;
- (2) the postponment of learning to read until interest and maturity make the process a relatively simple and efficient one;
- (3) the education of individuals who have not the capacity to attain facility in reading;
- (4) the placement before individuals of all levels of ability situations *en masse* which may be used as gross units or symbols in the thought processes needed in the study of problems involving vast patterns of activity;

(5) the demonstration of difficult processes, particularly those involving tempo, size or sound, outside normal limits of the senses.

Certain consequences have derived from the foregoing which deserve special consideration.

In kindergarten and primary schools it has been proved that after the first six years the child was not able to extend the limits of his possibilities of learning, and that the circle of his environment was too restricted for his intuition and understanding.

It became necessary then to offer something different. To give him adequate concepts, we must bring him into contact with things which fall without his range of natural vision.

A child can learn to read and correctly understand a group of things, phenomena or facts in a period of say six to nine years, but if with the use of the sound picture this period can be reduced to the half or a third, the gain to child, teacher and the didactic system is obvious.

It is true that there have been various types of

revolt from this process of learning. Laboratories equipped so that children could leap the bounds of the senses through the aid of instruments grew in numbers during the past few decades. It was observed that it is not possible to divide the element knowledge which comes from autonomous intuition from the knowledge depending on teaching. For example, the village or community as an entity is too large for the ordinary conception of the child in a limited environment. But a play miniature village brings concepts of life to children of five or six or seven, which, if they had to await the mastery of reading, they could not hope to attain before ten or eleven.

The new intuitive means have aspects which necessitate a necessary methodological and programmatic revision of what was once considered as definite and final.

Experiments carried out in this direction have shown clearly enough that the intuitive system, that is, the use of the sound film in this case, can bring the level of culture and instruction of a class of backward pupils almost to the level of classes where visual aids are not used and ordinary didactic programs are followed.

In his report for the year ending June 1933, Dean Russell of Teachers' College points out the great significance of the broad diffusion among the people of knowledge of present day problems. He shows that this is essential to the maintenance of a social order dedicated to liberty and equality.

The sound picture has much to promise the educator who is struggling with ways and means to diffuse knowledge with respect to the great social and economic problems.

The same demand for a medium which will short-circuit the laborious process of building concepts from verbal descriptions operates in vocational guidance schools, where it is essential that boys and girls obtain a clear realization of the nature and opportunities offered in hundreds of fields, and choose those which warrant intensive investigation. In this area, the devices which have been thus far developed have fallen short of the ideal they serve because of the lack of teachers capable to present the necessary materials adequately. The sound picture would seem to contribute to the solution of both of these difficulties.

One more point may be mentioned here. This is the professional training of teachers. The possibilities of bringing typical classroom situations from all over the world for study and analysis is one which has already been given some attention by teacher-training institutions.

There is the question of the explanation of phenomena and complex processes. Ordinary instructional techniques are lacking in their adaptability to show sound and motion coordinated in their natural form. For example, the writer is rare who can describe the action of molecules in such a way that the conception is carried over to the ordinary person. Physical laboratories have struggled with this problem, and teachers have struggled with it by using blackboard illustrations and wavings of the arms.

None of these devices compares in its effectiveness with animated cartoons. The pictures of this kind recently developed by the physical science division of the University of Chicago show how the moving picture fills a long felt need, and brings within the reach of the many what was previously only for the few.

No one can see the natural growth of a plant or follow astronomical phenomena with the naked eye, but the slow motion, animated cartoon or photograph can reveal these things.

The same thing is true in the matter of natural sounds. In order to reproduce them exactly, it would be necessary to possess a large collection of musical instruments which would be costly and cumbersome. The sound film can reproduce them all with scientific fidelity.

The possibility of cartography in bringing the infinite within the ken of the individual has been demonstrated by the group of astronomical pictures which have been developed.

The above points at which the new communication process potentially impinges upon the educational system by no means exhausts the possibilities.

According to Mr Mort, the sound films has the widest opportunities for development. Since however, scholastic methodology is based on the old oral and written systems and curricula, a radical revision of the same is essential if the true effect of sound pictures is to be obtained.

THE SOUND FILM IN TEACHING

Report of the Tokio Office of the League of Nations, TOKUDA.

The Report deals with the following subjects :

- (1) Film Section of the Ministry of Education ;
- (2) Tokio Women's Higher Normal School ;
- (3) Transportation. Bureau of the Ministry of Railways ;
- (4) All Japan Film Dealers' Association ;
- (5) Information. Section of the Ministry of the Navy ;
- (6) Mr. Y. Gonda.

(A) ARTISTIC POSSIBILITIES OF THE SOUND FILM.

— It is generally believed that the artistic possibilities of the sound film are much greater than those of the silent film, provided that the sound film be used in an appropriate way and at the right moment. In other words : such possibilities depend solely on the appropriate use of *recording*. The artistic possibilities inherent in musical films are, it is generally believed, practically limitless.

On the other hand, many organizations queried stated that sound films have fewer artistic possibilities than talking pictures although they have a more complex character through the effect of the variations in sound expression, while they are capable of provoking a greater mental effort than is required by silent films. Thus the sound films, which constitute today a transitional form between the silent film and the talkie, would appear to possess less artistic value than the talking film in its latest developments.

Mr Gonda, an authority on the educational cinema, has stated that the artistic value of the sound film is somewhat but not notably superior to that of the silent film.

(B) POSSIBILITIES OF THE SOUND FILM IN THE DOCUMENTARY FIELD. — All the bodies and organizations consulted expressed a unanimous opinion that the sound film is of the greatest value in the documentary field, as well as for teaching phenomena and facts in nature ; this is in accordance with its musical value.

(C) DIFFERENCE OF VALUE BETWEEN SOUND AND TALKING FILMS. —

Sound Films are :

- 1) Particularly useful in the cultural field,

and especially in giving instruction on the countryside and for documentary work in propaganda and education.

- 2) They can be used internationally because they do not contain dialogues in any special language.

- 3) Much superior for musical effects.

Talking Films are :

- 1) Of greater dramatic value for giving the real expression of the voice and for dialogue :

- 2) Very artistic and popular, but they cannot have an international character ;

- 3) They can have the possibilities and advantages recognized as appertaining to the sound film. They can be used internationally by taking advantage of dubbing systems but it is a difficult though necessary matter to take account of the various differences which exist in matters of race, language and national traditions.

(D) WHICH OF THE TWO SYSTEMS IS CONSIDERED MORE USEFUL IN TEACHING. — Opinions are much divided on this point. Some people prefer sound films which contain appropriate lectures and announcements recorded, while others consider talking films more effective as they appeal directly to the students' ears.

The Ministry of Education in charge of educational films expressed the opinion that talking films, with the exception of drama-talking pictures, are much more effective in the domain of teaching, since films are used as auxiliary educational means.

(E) SOUND OR TALKING FILMS FOR PROPAGANDA IN GENERAL. — In connection with this point, it was unanimously agreed that talking films are much more effective for propaganda in general. As for propaganda to be carried out in other countries, it is considered advisable to produce sound films with many positives with each language recorded according to the countries for which they are destined. In this sense sound films are deemed superior to the talking variety.

PRACTICAL POSSIBILITIES OF THE SOUND FILM IN DIDACTICS AND TEACHING GENERALLY

From a report by Mr. KAUFMANN.

PRELIMINARY REMARKS. — The silent film was already acknowledged by the majority of teachers as a valuable means of enlivening their teaching and making its meaning clearer, many of them, indeed, making personal use of the cinematograph to produce some fairly serviceable films for use in teaching; and it was only logical that the addition of sound to pictures should be considered as a further aid to didactics.

Psychologically, however, the addition of sound has aroused *opposition* on the part of many teachers, who fear that the sound and talking film may to some extent be used as a substitute for the teacher in a more or less large number of subjects.

They did not mean, of course, that the sound film could ever take the place of a living and thinking being with wide pedagogical experience, but fears have been expressed that the great simplicity and convenience of this technical invention may induce school authorities to seek competent pedagogues for the production of sound films which would invade schools. These fears have, however, proved to be unfounded, in practice.

a) ARTISTIC POSSIBILITIES OF THE SOUND FILM. — With regard to the *public cinema*, these are too obvious to need mention; but practically the same arguments may be used in regard to *cultural* and *educational* films for use in schools.

The sound film can faithfully reproduce the voice of a famous singer, the execution of a famous musician or conductor in any place, even in the smallest school. The artistic effects of individuals or whole communities can be registered and afterwards reproduced. Optical and acoustic effects have equal importance in these cases, but their combination in the sound film makes the artistic and didactic function of the latter infinitely more valuable.

The sound film opens endless possibilities also for the direct study of certain arts, from singing to every branch of instrumental music, and even to the study of theatrical art. In fact, the sound didactic film could be of great use in all the arts and crafts and even in trades, when the sound part includes comments and explanations, although these branches of education have nothing to do with acoustics.

b) SOUND FILM POSSIBILITIES IN THE DOCUMENTARY FIELD. — These are beyond discussion and

there is no need to dwell on them. The main thing, in fact, that remains to be said on this point is that an effort should be made to produce more really valuable films of the kind, even outside the purely commercial films of the news reels: preparations for expeditions, systematic reproduction of natural phenomena, formation of a cinematographic encyclopaedia of all discoveries in the domain of science, whenever they can be reproduced optically and acoustically.

c) POSSIBILITIES OF THE REDUCED SIZE SOUND FILM. — These films are of such decisive importance for schools that good machines for reproducing reduced size films have been made, and their construction in series is now only a matter of time and organisation and the means to be adopted in each country for the general definite introduction of such films as a didactic means in schools.

d) THE DIFFERENT VALUE OF THE SOUND AND TALKING FILM. — It is difficult to make a comparison between these two films. The *sound film* reproduces the authentic sounds which are heard at the time of photographing a process or an object: for instance, an explosion, the sound of a machine at work, the singing of a bird, etc. The silent film with a synchronised musical accompaniment that is almost without direct importance in the picture of the didactic film belongs to the category of sonorised films. All the same, its great importance in teaching lies in the fact that a well chosen musical accompaniment, or one that is especially composed for the film and suited to its subject as in the didactic films of the UFA, so greatly increases the attention and interest of the pupil as to augment considerably the didactic value of the film. The contrary is the case, of course, when the music is badly chosen.

The *talking films*, with some exceptions, forms part of the cinema theatre. The exception might be given by the authentic reproduction for instructive purposes of classical theatrical works of world wide fame; but this has not yet been attempted.

One of the varieties of talking film is of extraordinary importance for schools and is, indeed, the most important kind of sound film for instructive purposes, namely, the talking film accompanied by a synchronised comment explaining the pictures reproduced, the person who is speaking being for the most part unseen. By means of these films cinematographic reproductions of the rarest and most im-

portant things in every field of science can be projected, with explanations by competent instructors, either men of science explaining their own work or eminent pedagogues speaking of the film. But in this case also we have to combat the objection that it constitutes a means of eliminating the teacher. On the contrary, an *intelligent* teacher will be able to make use of the projection by basing on it afterwards a lesson completing the film with explanations suited to the *special mentality of his pupils*, in order that the film may thus yield its maximum pedagogic value. A method that, so far as I understand, has been used for the first time in America, should be mentioned here, for it completely utilizes the value of such films. The film is first projected together with the sound comment of a competent man of science or pedagogy; the teacher then has it projected a second time without the comment, which he himself replaces by an explanation of his own during the projection. The film can then be projected a third time or even more times as a silent film for repetition purposes, giving the pupils, by means of

questions and answers, the possibility of gaining the utmost pedagogic value from it.

e) WHICH OF THESE TWO KINDS OF FILM IS CONSIDERED MOST USEFUL IN THE PEDAGOGIC FIELD? — They are equally useful and are both absolutely necessary for modern teaching.

f) VALUE OF SOUND AND TALKING FILMS FOR PROPAGANDA IN GENERAL? — It is difficult to answer this. Propaganda, according to the general opinion of those concerned in teaching, should not be brought into schools. It has been known for long past that an extraordinarily efficacious propaganda can be made by the sound and talking film outside schools; a propaganda that is much more efficacious than that of the silent film or newspaper or other costly advertisement. The enormous increase of films with an advertising scope that we see in public cinemas is sufficient proof of this. Such films must, of course, be prepared with taste and be amusing without being immoral.

SOUND AND TALKING FILM IN TEACHING

(Editor's Note) Recent studies of the I. I. E. C. have led us to divide "sound film" and "sound and talking film" into two different categories so as to be better able to ascertain their respective value in teaching. It is now clear that the sound film, which gives at one and the same time visual and aural impressions, is more expressive, more natural and more real, and produces in children's minds profounder and more numerous impressions.

The noises of the sound film — if suitably adapted — give the best effects, and make the film less monotonous and more natural. They keep the attention alive, which renders understanding much easier.

The child who follows with the liveliest interest all the manifestations of human progress, may be said almost to vivisect those phenomena which strike him particularly in the course of his studies. How can he remain indifferent in view of his natural, insatiable curiosity in the cinema with its inexhaustible source of cognitions and experiences?

Synchronization has added a lot to the pedagogic film, rendering it livelier and more realistic.

The synchronization, should, however, be perfect, and the experts must continue their researches indefatigably, so as to get rid of those failures and faults in registration and reproduction which still exist today. A bad synchronization can produce

such an effect on the brain that it can cause a headache, and render it impossible to follow the action of the film nullifying its fine effect. Care should also be taken to see that the various noises reproduced are true to life and not given with too loud or exaggerated a tone so as to be deafening. Besides really causing fatigue, such badly reproduced noises can have a deleterious effect on the nervous system. The registering must be perfect unless we want a film to be classified as a bad film, although it may be excellent from the didactic point of view. The sound should be reproduced to such perfection that it seems absolutely natural, if it is to add to the illusion of reality in the picture.

What are the possibilities of the sound film in teaching? It is first of all extremely useful to give the pupil a musical culture. Equally, or nearly so, is it for the plastic arts and in special branches of science such as zoology, botany, farming, astronomy, etc. The vision of atmospheric phenomena, the practical demonstration of the biological cycle of insects, birds, domestic animals, wild beasts, reptiles, etc. can be interpreted by the sound film in all their interest and in such a way as to strike the imagination of the young pupil whom it is desired to teach.

In this way we are able to place the child's mind in direct contact with nature, in the certain know-

ledge that the child's simplicity of heart and mind will make him desire and seek for only the most beautiful things.

There is no visual aid therefore that can be so efficacious in this field as the sound film.

MUSICAL EDUCATION. — Another task of the sound film, not less important than the first, concerns the psychological education of the children entrusted to the charge of the teachers who are called upon to carry out their delicate mission of looking after the psychical-mental formation of the young people's character.

Music can have a large share in the spiritual education of the individual. It moves and exalts him, refines his spirit, teaches him to know and understand what is beautiful, and educates his artistic sense. With eyes fixed on the luminous screen, his attention entirely held by the episode unrolling before his gaze, the spectator is ready to receive, through the medium of the music, the purest and most beautiful emotions. He forgets the place where he is, and follows with trepidation, with joy and with sorrow the incidents in the action that fascinate him. The music places him under a spell and delights him, transporting him into an unreal and marvellous world which seems to be a world suited to himself, so attractive does he find it. The child reflects, studies, analyses himself and his own feelings without being aware of it. He gives a proof of this when he demands that the leading motives of the film shall be perfectly suited to the scenes which follow one another, without which the piece would lose all its value and real fascination.

Music can educate and have a beneficent influence especially on weak individuals who are attracted to sensations that disturb and upset them. Music can put the child that has been led astray in spite of himself back on the right path.

By working on his emotions, it can become a valuable help for arousing in him the instincts of normality. One should not forget either the bad effects which certain music is capable of having on some types of children. These can be so powerful even as to lead them to commit insane acts on themselves or others.

We must use with discretion and in limited doses those musical pieces which can be considered capable of exercising a violent influence on the imagination, and indeed we should use all educative music carefully. To insist on evoking strong emotions may turn out to be an experiment that will give results exactly opposite to those desired. Censorship,

then we must have, and a regular course of music. The profound psychological study involved here must be the work of experts.

POSSIBILITIES OF THE SOUND AND TALKING FILM.

— Many people have mistakenly thought or imagined that the talking film would one day or another take the place of the teacher. This was a fundamental error of appreciation. It is quite impossible for a machine to substitute the human element in educating and forming the character of human beings. The very idea is preposterous. The cinema is and will remain an excellent and continually improving didactic aid, which is closely connected with and reflects life admirably. Its development will naturally follow the progress of civilization, and the school will reap the advantages. We must remember, however that the cinema is and will always be — and we must insist on this as a principle — a most precious supplementary aid and nothing more. Indeed, we may say that the teacher will have to deal with — through the intervention of the cinema — new subject matter for study and research, which will in turn assist the carrying out of the scholastic curriculum, that is, it will facilitate the teacher's work, will simplify it, and will inspire him to fresh researches and new analyses with which to obtain better and better results with the more backward and obstinate pupils.

Once we have gained the scholar's attention, we have gone a long way towards securing the benefit of the lesson for him. This capacity to fix the attention is one the chief merits of the sound and talking film. It is also more real than the silent film, has more of the sense of life, is fuller and more suitable to a child's mind. The words and sounds make the action more harmonious; the music enables the ideas to penetrate into the spirit of the child, and to permit of a clearer and more interested perception of the scenes cast on the screen.

REQUISITES OF SOUND AND TALKING FILMS FOR TEACHING. — When the talking film goes beyond its *definite task of simple indication* that is, when it is a hundred per cent talking film, it is absolutely antididactic and often unartistic.

We can ask in which particular fields of learning can the talking film be considered useful and efficacious. To what extent? For which special subjects? The answer is for practically all subjects and especially for the teaching of languages, religion, geography, history, the history of art, etc. Care must be taken not to overdo the use of the

word. Parsimony in its use indeed is desirable, great parsimony. The speech in a didactic talking film ought simply to take the place of the sub-titles in silent pictures.

A different treatment, is required though when we are engaged in historical reconstructions, in showing expeditions, or in illustrating an entire decisive period of the history of a people or the evolution of civilization in the world.

The intelligent substitution of the sub-title with speech results in eliminating for the pupil the visual effort required for reading sub-titles which are often projected in flickering letters and not left long enough on the screen for a thorough understanding of their meaning. The incapacity to read the sub-titles perfectly, besides causing eye strain, results in a forced attention which is harmful to the brain. In any case, reading of any kind always tires very young children even if only slightly. We should avoid in teaching; over-fatigue; we should simplify, clarify so that the mind receives with the minimum effort.

Thus an outpouring of words causes a visual, aural fatigue and a sense of confusion. If we project for children a 100 per cent talkie; the logical result will be that by arriving at a certain complementary efficiency in our instruction, the result will be non-efficacious. This is a fact of no little consequence in pedagogy where one word can mutilate the thought, just as another appropriate word well pronounced can add an artistic touch to the film.

Is it possible to reach a state of affairs, which practically amounts to perfection? Let us be content meanwhile with considering that silence is often extremely valuable, because it allows the imagination to work with liberty in the field of inquiry and the subtler forms of analysis. We must leave the child somewhat to himself; we must allow his mind to work in all naturalness. Use the talking film certainly, but as little talk as possible.

It should become the effort of technicians and pedagogues to improve and perfect this scholastic organism, which should not be the cause of any harm to the pupils by giving them excessive, heavy and wearisome forms of study. It should indeed lead to a lightening of the effort required of the pupils, illuminating their minds with useful notions. *This lightening of the effort* will affect both teacher and pupil, obliging the latter to study with greater good will and inspiring him with a real sense of joy in seeing and learning. *The smaller physical and brain effort* demanded will certainly produce a greater output in the individual and collective potentiality of the human intellect.

Going back to the matter of projecting an historical religious episode which shows the children the customs and dresses of a given period, as well as the especial psychology of the times, we shall find in this case, the sound and talking film of the greatest service. The picture provides real entertainment, and gives the spectator-pupil the impression of witnessing a theatrical picture, that is a recreational instead of a didactic film. It also arrives at the end desired, that is to give a precise picture of the spirit of a time, and impress it firmly in the memory, so that when the individual who sees has to speak or write on that particular subject, he can, with the use of his imagination, transport himself at once into that far off historical period which will arise again from his memory. The pupil will express himself with a sureness of manner, with clarity, and even in an elegant and correct linguistic form, almost without being aware of it, since the precision of the image and the words of the film will be fixed in his mind and be constantly before his eyes.

It is, however, of the greatest didactic importance that the dialogue of such films be *brief, concise, simple and clear*. The talking film should be accompanied by musical comment which will lend a special attraction to the talking film. It is not always easy to find suitable pieces of music to accompany films.

In the historical film — whether it deals with a whole period, or picks out an episode revealing the special character of the social life of that time — musical accompaniment is indispensable, both from the didactic and the psychological point of view.

The child's ear is attentive to sounds. His entire being is focussed on the screen, and he seems to live in the picture. One can often observe in boys who are seeing a talking and sound picture (historical, war, atmospheric phenomena, naval or aviation scenes) a mixture of fear and daring, of joy and sadness. The lads huddle down on their seats when any sudden strange noise is heard, they tremble with excitement. At each roar of the cannon, they bend over further. . . more than one is heard crying quietly. Especially in war films their feeling of sorrow and compassion for the soldiers' sufferings disturbs their spirits. By taking advantage of this sentiment, we can obtain another result which is of a high humanitarian character: the education of the child's spirit to notions of fraternity and peace. When it is possible to find a suitable musical accompaniment, it should be played softly, with grace, and a due sense of fitness for the scenes which are being projected on the screen. Noisy music

in films has a monotonous cadence, which smothers the sound of the individual instruments. Strong sounds should be produced naturally, but a little toned down, so as not to cause shock or nervous disturbances among the public. The more one hears and appreciates the music, the greater can its exalting and purifying influence become.

Reason and the psychic ego will become more perfect and united if the music and the word are joined in such a way as to form a complete and harmonious whole, the object of which is to educate the mind, the spirit and the artistic sense of the young spectator.

THE TEACHER AND THE CINEMA LESSON. — We must ask ourselves what part will the teacher have to take in this department of teaching? How, and when is his assistance to be called into play?

It is obvious that he must first of all have a thorough acquaintance with the subject of the film. He must also know which are the difficult points and where he may have to stress sections in view of the special mentality or characteristics of the pupils. He must be able to consider the intellectual level of the film in relation with the intellectual level of his scholars. He must be quick to observe what is being grasped, and what missed as the film is projected.

It is always wise to introduce the picture with a verbal explanatory lesson on the subject being treated. Then the film can be run off in its entirety, followed by a second projection, which should clear up doubtful or difficult points which the pupil finds it hard to understand. The teacher ought to be supplied with the mechanism for stopping the film at any moment, so that he can clarify, and illustrate — possibly with the use of the slow motion projection — points and episodes which seem to require repetition in order to secure their retention by the pupil's memory.

A lesson given along these lines will never be forgotten by the children, who will remember it perfectly in a way to surprise the teacher himself, even if the pupils are not gifted with good memories.

THE TWO METHODS: A COMPARISON. — Both sound and talking films have magnificent possibilities and can both be used advantageously for

teaching. The sound films, as distinguished from the sound and talking film, has this advantage over the latter, that it is international in character and cheaper to produce. The use of dubbed talking films, which would become necessary if internationally standardized didactic talkies were to become common, must be considered out of the question. The pupils would at once perceive the trick, for they are very quick at observing changes and alterations from what they are accustomed to expect. We have spoken already of the bad effects of an unsatisfactory synchronization on the nerves and mentalities of the pupils. The pupils themselves have pointed it out in the various symposia organised by the I. I. E. C.

Sounds, noises, cries and acoustic effects in general can be understood by all the peoples of the world, while the talking film is limited to the nation which produces the picture, or under the best circumstances to a limited number of pedagogues and scientists accustomed to international discussions and versed in languages. The sound film allows the distribution of didactic films with evident economic advantages.

If pedagogues want to insist on using the talking film for didactic purposes, we must not fail to recognize that we shall create antipathies and contrasts between nations, owing to the greater prevalence of this or that tongue.

The use of the sound film eliminates this question entirely, though through it we can see the peculiar characteristics of a people, its culture, its material progress and its type of civilization. This is a factor not to be despised in moments of spiritual crisis of peoples like the present one, for it can help us to know one another better, to appreciate our different qualities — by means of a much to be desired exchange of cultural films — and mark the beginning of an era of loyal friendship and consequently of peace.

The sound film has therefore before it a task of pressing timeliness and universal character: that is, to become a marvellous instrument of intercourse among nations. Music, which has no frontiers, can approach all, unite and make brothers of all through the universality and identity of the emotions awakened by divine melody of genius.

A picture is worth a hundred thousand words.

Old Chinese Saying.

EDUCATIONAL POSSIBILITIES OF MOTION PICTURES IN ART COURSES

By

Elias Katz.

THE widespread use of motion pictures is the next progressive step in art education. So flexible are the objectives in art courses, and so well adapted are films to their satisfactory fulfilment, that it is merely a matter of time before the inevitable becomes actual.

However, let us not suppose that, overnight and of their own accord, films will become truly valuable educational aids in the countless school rooms where the study of art is daily increasing in importance. Many obstacles, many problems must first be overcome or solved. The groundwork must be logically and intelligently performed, so that future development may proceed from a sure foundation of thoughtfully considered facts.

Since we are necessarily destined to a period of much good and much bad investigation, our advantageous position at the opening of this period demands that we analyze the present situation, and then utilize the knowledge thus gained to formulate a comprehensive program for the future. The former course will clarify the usual misconceptions and will crystallize the general trend until now; the latter will set up definite, tentative goals pointing towards the most beneficial, immediate and ultimate results.

A preliminary study of the field of art educational films raises several problems which must be solved at once. First, we must know whether there are any films which *have* been used, or which *can* be used for this purpose. Secondly, we should be able to state the minimal essentials of a good

educational film. Next, we should know how art courses are presented, so that proper films may be suggested for use in them. Finally, some device must be developed, indicating precisely how art students react to the films they see.

These may be briefly stated as follows:

- (I) where are available films located?
- (II) how may films be objectively evaluated?
- (III) how may the effect of films be clearly measured?
- (IV) how may art courses be analyzed?
- (V) what films lend themselves to use in art courses?

Naturally these are not the only or most important queries. However, as the following paragraphs will try to show, an understanding of their meaning and significance is essential to proper perspective and true insight.

(I) Contrary to the usual belief, it was found that several types of films had been created for art classes. Also other types were discovered which might lend themselves to such use.

1. The Models in Motion are a method for stimulating drawing (I). In each reel,

(I) Developed in America by Charles Woodbury and Elizabeth W. Perkins of Boston, and produced by Eastman Teaching Films Inc., Rochester, New York. Substantially the same method is described and illustrated by M. Adrien Bruneau of l'Ecole Nationale des Arts Decoratifs, in "Bulletin de l'Institut Psychologique", 1920-21.

a model (animal or human) repeatedly performs the round of some characteristic action. Drawing is done either while the films is moving, or from memory directly afterwards.

Mr. Charles Woodbury has used films at the Chicago Art Institute to illustrate the action of forces in special composition, together with certain films to build a background of visual experiences. Unfortunately, no report of his work is available.

2. The Metropolitan Museum of Art has been producing and now distributes generally cultural films on various phases and periods of art. They may be roughly grouped into Travel, Historical, Biographical, and Process films. As their names imply, travel films picture lands where art is being, or has been created, ("Digging Into The Past"), historical films set forth an episode of the past ("Vasantena"), biographical films reveal the artist at his labors ("Childe Haslam"), and process films demonstrate manipulation of materials ("Making of Wrought Iron"). Although the films were *not* specifically designed for educational use, they often contain valuable classroom material.

3. Films of Natural Beauty, through the camera's unique power to record *movement*, make it possible to preserve and utilize the magnificent range of dynamic visual experiences.

4. Purposive (animated line) films, by illustrating how space is filled, and by revealing growth dictated by forces *from within*, disclose a new and inspiring field for creative kinetic design.

5. Masterpieces of Art films, by directing the spectator's attention to an outstanding work, or feature, will indirectly influence appreciation of it.

The types of films most adequate for this work can only be hinted at, in the present state of knowledge. Further investigation will soon disclose a wealth of others.

(II). Assuming that the most representative known films have been viewed and carefully analyzed, we should be in a position

to know their common elementary components. Those qualities might be then incorporated into standards which future films should at least attain. They would be:

1. *educational* criteria dictated by curriculum objectives and individual classroom needs, and therefore relating to the subject matter;

2. *artistic* criteria for adequate treatment in the medium of the cinema (effective design, rhythm, etc.), and

3. *technical* criteria dealing with mechanical or physical factors (photography, condition of film, etc.).

Two points should be emphasized. First, these criteria can be continually extended and revised: definition does not necessarily mean fixation. Secondly, these are *minimum* requirements. Motion picture films can hardly be said to have reached their superior limits.

(III). Discovering the effectiveness of a given factor, a problem elsewhere so neglected, has received its full share of attention in the field of educational films. Indeed the need for proving the adequacy of certain films as methods of instruction has even generated many varieties of measuring techniques. Among the more popular and successful ones now employed is the questionnaire.

With the aid of a faculty advisor, the author developed a crude preliminary questionnaire and presented it to an adult audience. The purpose was to discover the effect of an abstract design (purposive) film, "Diagonalsinfonie", shown together with others at Columbia University on January 17, 1933.

It was found that the general reaction to the films was favorable; that the film's duration was consistently overestimated; that there was an undetermined emotional response; and that the audience was clearly aware of the film's purposive nature. Many of the drawings stimulated by words (Question 5 listed fourteen commonly used adjectives, and asked for drawings which the

Subject associated with each word) were directly traceable to film motifs. Finally, immediate written reactions were largely favorable, many of the criticisms and suggestions evidencing fine comprehension of the film's potentialities, both artistically and educationally.

Many improvements and additions evolve from this experience with a testing device. In general, these might be in greater specificity for item and in wider distribution to more homogeneous groups. That the questionnaire seems a definite beginning to this phase of research cannot be denied. Certainly the problem of determining the effect of films should be investigated to its logical conclusion.

(IV and V). A study of curriculum practices at successive levels in the school system reveals that in elementary schools, in secondary schools, and in colleges, the subject is stressed differently. For purposes of convenience, an arbitrary separation may be made into History, Appreciation, and Practice of Art. Depending on the objectives of each, several types of films might be valuable in these divisions.

In Art History, where the aim is to understand the evolution of art forms, films are an excellent means of presenting essential facts. A *travel* film like "Temples and Tombs of Ancient Egypt" (1) gives a clear picture of important existing monuments. An *historical* film like "The Hidden Talisman" (1) portrays an interesting story laid in a medieval background. A *masterpiece of art* film "The Pottery Maker" gives an insight into the historical period it depicts — American art of the 1860's.

These examples are selected from the actual attempts to create films for the study of Art History. A better source would probably be certain portions from regular theatrical films like "Kings of Kings", "Hunchback of Notre Dame", and "Me-

tropolis". The commercial studios are far better equipped to produce painstakingly accurate constructions of the past.

In Art Appreciation, two major objectives (of the many so often stated) are "to familiarize the student with past and present fine arrangements of line, mass and tone", and "to cultivate the habit to thoughtful selection. To fulfill these goals the following types of films are offered.

A *travel* film like "Twenty-Four Dollar Island" by Robert Flaherty, with its magnificent views of New York City, will familiarize the pupil with fine arrangements of line, mass and tone in architecture. An *historical* film like "The Spectre", a phantasy in a setting of Colonial superstition, will do the same for costumes and architecture of that period. A *biographical* film like "The Etcher's Art", which shows the work of Frank Benson and others, will aid in cultivating habits of thoughtful selection of prints. A *process* film like "Glass Blowing, With Specimens of Ancient and Medieval Glass", will aid the critical appreciation of glass-ware. A *film of natural beauty* like "Gorges of the Giants" will widen the pupil's experience, while showing beautiful arrangements of moving line and tone (1).

Since Art Appreciation is the basic art course at all periods of schooling, it seems likely that films will ultimately be most widely used there. Consequently more attention should be directed to the values of motion pictures in this phase of art education.

The Practice of Art usually demands the ability to draw, a knowledge of effective design, and skill in techniques. Films could be successful in motivating these activities, and also in furnishing valuable motifs and models.

In drawing, the *Models in Motion* films

(1) "The Spectre", "The Etcher's Art", and "Glass-Blowing" were produced and are distributed by the Metropolitan Museum of Art; "Twenty-Four Dollar Island" is distributed by Pathé; "Gorges of the Giants" is one of the Fox Movietone Series.

(1) These three films were produced by the Metropolitan Museum of Art.

have demonstrated their value as stimulation for graphic exercise. On the other hand, *purposive* films and films of *natural beauty* provide any required visual experience, which might be material for use by the student in the problem at hand.

In design and composition, abstract *purposive* films showing the filling of space and the action of forces to produce a given form, motivate activity along these lines, and furnish dynamic motifs to be thematically treated. Certain films of *natural beauty* (as Mr. Charles Woodbury suggests) might also be used in the development of a "Feeling for composition", but it is not quite clear exactly how they might be presented.

In technical processes, it seems likely that films give a clearer insight into simpler procedures, and will indirectly aid in manipulation of less complicated materials. Unfortunately no experimental data is available on this point.

The foregoing statement of possibilities leaves much to be desired. The analysis of courses was arbitrary, the suggestions incomplete, and the examples far from the ideal. What little has been previously said and done on the subject is so recent and incomplete, that it could not be otherwise.

Indeed, if critically examined, the five problems above stated are merely intimations of what lies in store ahead. This new, fascinating field is vast and unexplored, and efforts to chart it demand definite goals and guidance — in short, a working program for the future.

First and foremost we shall require a circulating motion picture library, wherein will be collected the best available films. Such a central source, distributing films at moderate cost on a non-profit-making basis would not only be a strong incentive for teachers and institutions to make use of the films, but would itself create a market which commercial film companies would be only too happy to supply.

Secondly, the mass of valuable information now widely scattered in various places should be organized and published in some easily

accessible form. An important factor in the lag of progress until now has been ignorance of other investigators' work (1).

Thirdly, experiment and research with films in art classes must be encouraged and coordinated to the greatest mutual good. Misunderstandings, contradictions, and even failures are bound to occur where there is no precedent. Some method must be found, therefore, to facilitate investigation, and to utilize results most advantageously.

Finally, motion picture films must be created to fill the need for good art educational films. Who will make them? In the last analysis, it will not be the professional film producer, but actually the thousands of art teachers and supervisors confronted with real class room situations and problems. They are the ones who will use the films, they alone have the power to initiate and carry through any program which may be adopted.

* * *

Here is a fragmentary picture of the art educational film field. Here are the bare outlines of a plan of attack grounded on facts and aiming at results.

Why do we hesitate?

Let us move forward!

* * *

(*Editor's Note*). The article by Mr. Elias KATZ seems to us to provide a useful basis for a discussion on the use of the cinema for teaching of the fine arts and especially the graphic and plastic arts. Instead of examining the various grades of teaching in general so as to show the importance of art lessons and to appreciate the conditions under which such lessons should be given, the author prefers to distinguish three different kinds of studies: history of art, artistic culture and the practice of art. Hoping that films may be made along the lines of the three divisions, Mr. Katz proceeds

(1) The writer has collected the nucleus for such a bibliography. It contains annotated lists of forty-four books and articles, three periodicals, thirteen film sources, and over one hundred art educational films, and is continually being enlarged.

to examine the possibilities and conditions for the use of the cinema in the graphic and plastic arts.

It becomes necessary then to proceed by a process of elimination without, however, pretending to attribute value to the considerations which follow. We believe that both in the interest of the teaching film and its advance, and also to avoid any abuse of its employment that it is useless to ask from the cinema what can be obtained with simpler means. Therefore the considerations that follow can only be of value inasmuch as they can help experts to study seriously and debate the problems that arise, in order to establish in every branch of teaching the degree of utility of the cinema and its possibilities.

DRAWINGS IN THE PRIMARY AND SECONDARY SCHOOLS. — Let us look first of all at the primary school. It is our opinion that it would be inadvisable to impose the teaching of art by methods more complicated than those in use, that is by line and shaded drawings such as are to be found in the albums of models generally used in primary schools.

In secondary schools, the drawing lesson takes on a greater importance, and special drawing masters are used to teach the pupils ornamental drawing.

Both in primary and secondary schools geography, geometry and natural science lessons may furnish occasions for drawing exercises. This sums up the so called *practice of art* in the two grades, and it is generally limited to a restricted number of subjects because the requisite capacity is not to be found among more than ten or fifteen persons out of a hundred. For the other 85 or 90 % this kind of teaching is really only a waste of time.

Until it can be demonstrated to the contrary, it would seem then that the teaching of drawing in primary and secondary schools requires the creation of special films or justifies the use of the cinema. It may be objected that the motion picture sharpens the sense of observation, and encourages in the pupil what Katz calls *dynamic visual experience*, to which it may be replied that there are sufficient subjects where the utility of the film is clearly manifest without introducing it into the teaching of drawing.

TECHNICAL AND NORMAL SCHOOLS. — We propose to make mention of the schools in which qualified workmen are trained for various branches of industry rather than schools of applied arts or handicrafts which are connected with teaching the fine arts.

In several trades the qualification required is, if not high artistic capacity, at any rate a certain skill and precision in geometrical and linear drawing. Can the cinema be of use here? We should not confuse geometrical drawing considered as a purely graphic art with the construction of geometric figures for theoretical demonstrations. It is known of course that attempts have already been made to use the film for purposes of this kind, and not without a certain success. It is well to remember this, for this type of film can be used in certain forms of art teaching, which, like architecture, for instance, require serious mathematical studies. We must not exclude its utility in the case of the supplementary schools for primary teaching, nor in the secondary schools, even though the instruction given partakes more or less of an art character.

In industrial and trade schools and in evening school courses for self-improvement in technical subjects, the teaching of drawing has a great importance. Since the final aim is to induce the student to trace designs correctly and to make an exact interpretation of sketches, we may ask ourselves if the cinema will not end by complicating the teacher's task without any corresponding advantage.

FINE ARTS SCHOOLS. — We have examined three cases in which it would appear advisable to proceed with a more thorough study and discussion in order to determine the degree of utility of the cinema and whether it be really worth while making special films and what the characteristics of such films should be.

In any case, we must take account of the objects of the teaching, and in the second place, of the proportion of pupils showing aptitude for drawing, which is an essential requisite for learning all graphic or plastic arts. This second consideration loses its effect in the case of schools for teaching the fine or applied arts, since all the classes will be exclusively composed of students who possess special aptitudes and tendencies in a more or less developed degree, such as to encourage them to take up the study of a special art. In this case, the inquiry into the utility of the cinema in teaching, from the practical point of view and as regards the technique of the art can be carried out on a more homogeneous ground.

We will not fill up this note with quotations from films on the technique of the various arts. It will suffice to remark that several of such films exist in several countries, but their utility from the practical teaching point of view must depend on the teachers themselves who must decide if film teach-

ing in this or that subject is capable of providing a useful complementary work to the instruction given by the master (1).

Whatever may be the opinions of teachers of art, we cannot but admit that films like *Schaffende Hande* (Creative Hands) by Hans Cürliis, or *Les Artisans Français* by Jean Benoît-Lévy on the technique of famous painters, sculptors and decorators have an interest not only for artistic culture in general but also for the practice of art. This is so because such pictures show students technical systems different from those of their own teachers, while they thus admit a certain eclecticism into the teaching of art. It only remains to consider in which branches of teaching the utility of such films is most manifest. It is perhaps when the student, having acquired a certain mastery over his technique, begins to put the impress of his personality on his work.

The utility of the cinema in schools of fine arts has been considered under other aspects. Pierre OLMER, whom we have already quoted, has stated it to be his intention to use the film in his courses of perspective under the belief that, by means of the slow motion projection, it will be possible to make demonstrations of perspective in movement. "What is important", said DELACROIX, is not to place perspective in the artist's *spirit* but in his *eye*".

The same remark is applicable to everything that moves, both men and animals, and this is probably what Katz refers to when speaks of *moving models*. In this department, chrono-photography may usefully be joined with the slow motion projector, since both systems have their own advantages. Chrono-photography allows an individual observation which can be prolonged at will of the successive phases of a moment. There is always, however, a solution of continuity which the cinema completely abolishes. It is all to the advantage of the cinema, and especially when the slow motion projection is used, to be able to arrest the running of the images at that precise moment which particularly interests the students.

(1) We may cite a precedent which would go to show that art teachers have no hostile prejudices against the introduction of the cinema in their courses. Last year, when taking possession of the Chair of Perspective at the *École des Beaux Arts* in Paris, M. Pierre Olmer announced his intention of taking advantage of the cinema. "It is useful to show students", he declared "side by side with theory, practice, because in this branch what is most helpful and suggestive is the example of the great masters".

There is no need to insist on the valuable aid which stereoscopy can give. At present there are too many announcements of new systems and new inventions along this path for the student to be able to lay his hands on anything technical and industrially practical.

One field in which the cinema would appear to have demonstrated its utility is that of architecture. Apart from its capacity for multiplying to infinity the various aspects of edifices or parts of edifices, the cinema has the great advantage of being able to represent in a methodical and harmonious synthesis the successive phases of construction in modern buildings. Films of this kind, well conceived and properly made, can be real lessons and can provide clear explanations of some of the various methods of building, which variety depends to a large extent on conditions of climate, surroundings, space available: all of which have an effect on the line, on the choice of materials, workmanship, etc. In any case, for every form of art, a comparison between the technical means for carrying out the work and the methods of application can prove useful, while the employment of the motion picture is justified in all cases in which the comparison can be made easier through the use of the screen. This is a fact which ought to be carefully taken into consideration in cases of using the motion picture in Fine Arts and Applied Arts Schools.

ARTISTIC CULTURE AND HISTORY OF ART. — With regard to the utilization of the motion picture for art culture and the history of art, the latter can be considered together. Art culture proposes to develop the artistic sensibilities and the cult of the beautiful, and it therefore logical to look for the elements of such a course in the history of art.

The problem which faces us, if we follow the methodological system of Katz, is to determine the gradation of the elements of artistic culture and historical notions of art which must be introduced into films, if we want the latter to respond to various grades of teaching in general and the requirements of the higher and specialized courses (applied arts, fine arts and archaeology).

It would appear to be evident that in the double department of artistic culture and history of art, the motion picture can be useful in all grades and for all courses, taking only the matter of the pupil's age and the consequent possibility of his deriving advantage from the film into consideration. This is a matter for pedagogues, as is also the question of the gradation of courses and grades.

The idea of comparison seems useful to us also

for studying the composition of art culture and art history films. Comparison as a pedagogic principle will also reveal the possibilities of the students in the various classes. Comparison will show the art production of various epochs and different countries, illustrating motives, tendencies and fashions. The indications which we possess concerning a film made by Carl PFLUGER of the department of Public Instruction of Basle on *Rhythm in Nature and Art* suggest to us certain ideas for comparisons which might lead the students to form almost insensibly a philosophic conception of art which will certainly not possess the loftiness of that of a Taine, but which may nevertheless, help in examining first principles.

Acknowledging a certain rhythmic analogy between nature and art, it does not seem impossible to trace to different climates the different rhythms of nature and their influence on the rhythms of art.

It does not seem risky to attribute to climate an artist's exuberance or indolence, the exaltation or pondered quality of his inspirations: all which states of mind are interpreted in the work of art in more or less capricious lines more or less rational features, forming the base of all artistic creations. We may go back into the past and recognize the characteristics of a nation's art, its influence, superimpositions and connections with the art of other peoples. The economic history of a people will cast its reflex on that people's art, and the study of one side of nation's life must cast light on all the others.

Apart from any question of didactic value, a comparison undertaken in various departments can yield us elements for fixing grades in the preparation of art culture and art history films. The foregoing are merely suggestions for experts and may possibly prove useful for a profounder study of the whole question.

THE USE OF THE CINEMA IN TEACHING VARIOUS SUBJECTS

Report of the "Czechoslovak Confederation of Intellectual Workers".

FILM AND DIDACTICS. — New teaching methods continue to insist on the need of bringing the school and active life closer together and of rendering observation for young people as easy and clear as possible. It was in this way that the doors of the school were opened to the cinema, which with its special technique, is capable of improving any method of teaching.

With regard to the subject-matter of teaching in general, the motion picture allows of an understanding of abstract things, increases the possibilities of intuitive knowledge, and makes the teachers's explanations clearer. Indirectly, the film can render a good service to the school, illustrating special themes which are closely connected with life, with social and economic problems or with scientific, artistic or ethical points of view.

When the cinema made its appearance, the benefits it would later on be able to offer to teaching were at once appreciated. The first use in the didactic-scientific field that took place was when Fausen utilized the motion picture for observing the passage of Venus over the sun, which proved that the film was particularly suited for reproducing phases of that movement which, on account of its rapidity and multiplicity of detail could not, without loss to scientific exactitude be divided into fractions to permit of a long and minute observation.

Another advantage offered by motion pictures used for didactic purposes is that the spectators' minds, observing, analysing, comparing and classifying the phenomena explained by the teacher work according to a unified and simultaneous policy which permits of visual improvements being rendered objective and universal instead of splitting them up into various observation centres, and making them subjective, as occurs in microscopic observation. Moreover, the possibility of using the slow motion projector introduces the microscopic principle in the measuring of time, while the accelerated projection permits of a rapid synthesis of events which actually require a longer time to come about (the growth of plants, geological transformation of the soil, evolution of the species).

In cinematographic teaching, room should be left for the animated cartoon, which allows us to complete the scenes of a schematic movement so that the spectator's intuitive powers will benefit thereby.

If the projector is fitted with a lever for arresting the running of the picture for a moment, the advantages offered by the film include those offered by the lantern slide or still photograph, and permit the teacher to become independent of time and the greater or less rapidity with which the various phenomena take place.

We may therefore assert that the motion picture is a precious aid for rendering natural and easily comprehensible the ideas and concepts which arise in the various subjects of a curriculum.

LANGUAGE AND LITERATURE. — To know one's own language and literature and the language and literature of other countries means being able to enter into the spirit of the inhabitants of one's own and foreign countries.

Comparison is a useful method for understanding a language. One's intuitive ear allows one to perceive the similarities and differences between a correct and an incorrect pronunciation. One fault to be avoided in phonetics is to follow too closely the way in which the teacher articulates the syllables, especially when this is done in exactly, a fault which can only be corrected by visual exhibition of the correct manner of articulating words. Nothing is more helpful for arriving at a correct pronunciation than falling back on a model articulation shown to the pupils on the screen in a language-teaching film. In this connection, good work has been done by films towards educating deaf mutes.

In order to understand a literary work properly, we must know the surroundings, feel, as it were, the breath of life which links the hero and heroine of the work with its passions. To be able to make a trip through the ways of the world can only be the privilege of a few. The film can take us a voyage around the world in a poet's or novelist's dream, and it can be readily accessible to all purses. A good film can show us more exactly than the most accurate explanation of any teacher that which forms the intimate spiritual essence of the French people, of English solidity of character, of the indolent lives of Oriental peoples.

Why should we not unite the poet's dream with visual reality, a reality which is therefore near us and offers to children a complete understanding of those longed for but hidden beauties which might remain misunderstood. The truly beautiful ought to form part of the universal aesthetic heritage.

The child can see and feel in a film composed of art and literature that which can awaken in him sympathy for the spiritual creations which the poets produce from their hearts for the general good of humanity.

HISTORY AND GEOGRAPHY. — To love well it is necessary to know one another through direct contact, or with what has the appearance of such, words are not sufficient to show children that the history of men who are born, suffer and die in our little world is to be

read especially in the aspects of the differences which separate them but which contain also the synthesis of those efforts towards a better and a nobler humanity.

History shown us in the motion picture teaches us in a comprehensive vision the eternally fleeting aspects of things and the continuous metamorphosis of humanity. No lesson by the finest teacher can be as valuable as seeing in a film the glorious and tragic story of ancient Greece, of ancient Rome or forgotten Pompei. If we want to inculcate in children's minds a love for peace, it is not enough to give them verbose lessons on the principles of fraternity and human solidarity. We must arouse this interest in something, which by creating much deeper feelings in them, excites their inmost sentiments. Here then is a field for good historical, geographical and astronomical films which have all the qualities for giving the child a knowledge of the varying aspects of human life, from its primitive animality and barbarism to the dream which may seem unreal, of the humanity of the future. We can with the motion picture show the child the folly of war and bring his soul into closer contact with the universal soul, we must let his spirit feel the sense of compassion, of tolerance, of respect towards ourselves, our own country, and the countries of others.

On the other hand, a reciprocal film knowledge of various peoples and the peculiarities of their economic, industrial and social life is necessary. This takes the place of that direct contact which is generally impossible, and can never be complete. The teacher will not be able to give his pupils much more than occasional and fragmentary intuitive instruction with the use of motionless images and maps that can only give uncertain and confused indications.

MATHEMATICS AND CINEMA. — Theoretical mathematics, as opposed to applied, cannot by its very nature take advantage of the help of the film. On the other hand, illustrated geometrical applications can use the film with advantage. When geometry deals with the revolution, movement and position of bodies, it does in fact suggest the idea of a complex and not easily imagined movement even when a model is used. The use of the film made out of drawings affords an excellent aid in this case, the advantages of which have not perhaps been entirely appreciated.

The teacher, with the use of the film, will be in a position to offer a complete vision of geometrical demonstrations, so that the mental formation of logical operations can be transformed, by means of the film into a succession of visual perceptions, all following on one another, and all leading to the same conclusion, that is, to the demonstration of an abstract piece of reasoning. In this way the teacher can illustrate for

his pupils the demonstration of the theorem of Pythagoras, resolve all the problems connected with it and explain the operation of tangents and the origin and nature of lines and bodies generated by movement.

There can be no doubt that geometry can be very well taught through the motion picture, which will greatly assist the work of the teacher.

NATURAL SCIENCE. — A subject which can call on the help of the sound film is natural science. Films showing episodes of animal and vegetable life give an illusion of the real thing, and show us the most delicate and less easily perceptible details.

Microscopic objects projected on to the screen become accessible to all, which all goes to show the large

amount of time the teacher can save with this process so adapted for reinforcing the powers of observation.

The slow motion projector renders clear and comprehensible the phenomena of biological existence, while the accelerated picture and the animated cartoon can be usefully employed in the study of crystallography.

Nothing can better assist the formation of the intelligence than direct contact with nature, from which children may derive a love of our mother earth. If city children cannot easily see the beauties of nature at first hand, the film can offer them the illusion of seeing and feeling through the sound picture the powerful breath of life in action. This is the synthesis and best justification of what children and humanity in general can expect from the motion picture.

I am speaking of a theatre that should be immensely popular, a theatre responding to the ideas of the people, a theatre that could circulate in the smallest village.

MICHELET.

THE CINEMA AND CHILD PSYCHOLOGY

By

Dr. Victor de Ruette.

A GLANCE at school reports in all grades of teaching will convince anyone that the present excessively heavy scholastic programmes of work must necessarily lead to overfatigue in both teacher and pupil, the consequences of which already form one of the problems that the medical man is called upon to face practically every day.

Teachers generally are ready to accept the aid of the educational film with enthusiasm and only wish that it would become immediately and generally available. The main difficulty to be overcome is that of adapting it to child psychology, and this is more necessary in the training than in the teaching field.

This is the goal of all those who are interesting themselves in this question : in the matter of education nothing is of such importance as direct contact with the child. Through treating and advising children, I have come to know the normal and abnormal child equally well, and may be permitted to hope, therefore, that my psychological knowledge and experience may constitute a slight contribution to the great work of education.

* * *

Every human being, owing to the simple fact that he has internal sensations, is subject to the needs inherent to his nature. These needs are bound up with the life of the individual and the propagation of the species, and up to a certain point they influence the liberty of the individual.

There is no need, for the purposes of this study, to insist on the necessity of physical

exercise, which should be brought to the understanding of children by means of the screen, showing them all the systems of physical education. The film answers a number of purposes : it arouses the mental activities and gives a sensation of pleasure in the acquisition of new knowledge ; it satisfies the need of rest by making the assimilation of scientific subjects easier ; it satisfies emotional needs by presenting emotions that are sound and moral.

The educational cinema has a vast field of operations : public instruction, popular education, physical instruction, social welfare, hygiene, rational agriculture, tourist and colonial propaganda, military preparation, industrial and commercial documentation.

The aim of education should be to obtain improvement by natural and normal means. It should further show clearly how needs and interests are common to all people. It should be based on the inherited qualities and aptitudes inherent in the individual, encouraging their growth in beings of tardy development and awakening new qualities and aptitudes wherever possible.

To make a success of this task and accomplish a useful work, the exact psychology of the child and its possibilities must be understood, as well as the dangers to be avoided.

Children's Susceptibility to Influences. Children are very open to influences and suggestion.

The brain in childhood, which is in a state of continual development, is constantly receiving new impressions. As a rule, one impression cancels another, but the earlier

ones always leave some trace behind. In fact, the child's brain not only receives new impressions but, since its structure is eminently plastic, a strong impression leaves indelible traces in consequence of the strong emotional effect produced. Ideas penetrate through the understanding, become fixed and are then stored by the subconsciousness.

The brain is composed of an infinite number of centres formed of receptive cells: pyramidal cells which are in a state of continual activity, with a protoplasm in a constant state of osmosis, in which reactions take place that are known to us only imperfectly. The microscope shows us only the dead cell, which is fixed, coloured, denaturalised by a long period of successive fixations and is no longer an active cell that is capable of reacting.

We know, nevertheless, that these cells react, accumulating non-assimilated detritus which multiplies under the influence of work and paralyses the cells under the influence of overwork. These centres are very numerous, and are connected with one another. Ways of communication start from them, putting them into action one against another. There is an extremely complex interdependence among these cells.

This is why an emotional shock will react on the centres of speech, hearing, sight, co-ordination of movements, the way of walking, of writing, of behaving.

Each shock produces humoral alterations in the receptive cells, as a consequence of the dynamic reaction it causes. These alterations may be very serious, even to the point of causing haemorrhage or lymphatic discharges in subjects predisposed to such trouble.

The nervous and cerebral systems become more receptive, more emotive, more impressionable by the repetition of the same emotions. A vicious circle may thus be started which, from emotion to emotion, may cause brain fatigue, anxiety, hallucinations and fixed ideas.

The great resource of the nervous system, from the energetic point of view, lies in the fact that abstractions may be formed, through the diversity of centres, which allow a certain

equilibrium to be re-established. One centre may rest while the others are working because it becomes *diverted* from the general sphere of activity. It must not be forgotten, in fact, that distraction is often a source of well-being; it is the natural and normal reaction of a sick or tired organism.

The thing that distracts amuses at the same time; the thing that amuses arouses interest and has a pleasing influence; the thing that has a pleasing influence convinces, and the strong suggestive power of the cinema on children is derived from this conviction.

Eliminating the external world, the cinema makes a greater impression, creates new unconscious reflexes, which form the foundation of the whole character and of the way to behave; and the younger and more impressionable the brain, the greater the effect.

The cinema requires the whole attention of the spectator owing to the simple fact that it gives a pleasant impression, and this is especially the case with children, who are the more easily impressed when the other fields of physical and mental activity are in repose.

This is also the reason of the intensity of the emotional effect produced, which constitutes a danger when it is too violent, or when moderately violent emotions are too frequently repeated.

It is likewise the reason of the moral influence on the child of spectacles which elevate the mind: scenes of sacrifice, laborious lives, the prizes gained by work, scientific discoveries, the feeling of beauty given by a pure wholesome life in the midst of nature.

The cinema will thus help to fix the principles of education, kindness, devotion, filial and fraternal love and the beauty of sacrifice on the child's mind. It should arouse enthusiasm, but only for the finest human qualities.

The Cinema and Fa- There is no need to
cility of Learning. make a distinction between the documentary and the teaching film. The important thing is that the teaching film should not be tiring, boring, heavy, nor beyond the understanding of the children for whom

it is intended. Like the documentary film, the teaching film should stir the emotions and give pleasure; it should be attractive to the mind of the pupil if it is to be really useful. Either of these two types of film completes the other; indeed, we might say that there is no sharp division between them.

In order to make learning easier and to adapt teaching by the film to the various needs, it is advisable, in our opinion, to use both types. For instance, a film on valves would help scholars to understand the theory of communicating blood vessels, and they would understand and appreciate better the utility and working of valves after the demonstration of this documentary phenomenon. The one type helps the other, and aids us to fix on the child's mind, both from the theoretical and the practical point of view, the idea of the utility and sound reason that lies at the basis of nature's laws.

Education should be founded on the same psychological bases as instruction. The reactions of the subconscious mind, which stores reflexes that are not caught by the reason, should always be kept in mind.

For instance, it is a mistake to place too much importance on the possible influence of satiric scenes on normal children. When the light is put on again and the children have left the cinema, it will seem to them as if they have awakened from a dream. The personality begins to react, and the child laughs at the absurdities that have been holding its attention and even, perhaps, amusing it, and will feel nothing but disgust for the trivialities it has been seeing.

If the teacher desires to make use of this natural power of reaction that belongs to the child, he must not be afraid to act on it by contrast, although he must do this always within certain limits. Scenes dealing with slothfulness could be used to excite a spirit of initiative and industry; but we must insist on the fact that the most important thing is a sense of proportion, of reason, and a great capacity of adaptation to the child's environment, age and aptitudes.

On the other hand, it must not be forgotten

that the critical sense and vigilance of the spectator is liable to be in abeyance during the projection of a film, and it is therefore not wise to rely too much on the child's power of resistance to the impressions received.

Nor must we forget that the lack of relief in film photographs makes them less realistic, and of itself is sufficient to give the impression that what we see on the screen is something that is outside of us and can therefore be dominated by us. The natural result of this is a feeling of pleasure which deadens our sense of criticism and power of resistance, and gives the spectator the pleasant impression of a dream.

A child's psychology is different from that of an adult. It is more impressed by action, that is to say, movement. Ideas are more easily conveyed to its mind by means of pictures, so that great benefit can be obtained by making use of this medium in certain branches of teaching.

The child is attracted by the life of the film even if it does not understand it: animals' movements, emotion, anger, laughter, objectionable sentiments, abnormal situations such as scenes of ill-treatment, comical attitudes of animals, fairy tales, etc., all interest it. It will also grasp details that escape adults, such as a piece of cabbage in soup, a litter of pigs, a torn dress, shoes that are too large for the wearer, a hat that is too large or too small.

Care must be taken to avoid such details as may be noticed to the detriment of the subject or main theme, because in that case the educational film will fail in its aim. Unessential details that may be included should be such as will make the film restful and pleasing to children, but they must be introduced with discretion.

A sympathetic atmosphere will be created by a film that is made really interesting to children. Since synthesis is more in their line than analysis the film may abound in good descriptions, although it must contain nothing pedantic or heavy.

The chief faculty required before the screen is *perception*, which opens the way to

concepts. Without perception, the educational cinema will fall short of its purpose, and it is just in the development of this possibility of defining the multiplicity of sensory stimuli that we can make a distinction between the normal and the abnormal child.

Like every other psychic process which is developed in the child, this faculty must follow the line of least resistance. A child absorbs an idea much more easily through the visual sense than through any written or spoken explanation. The child is therefore primarily visual and impressed by movement. The reaction of a child to a moving object is quite sufficient to show this, the impression received in this case being stronger than that caused by colour or light.

When we explain an idea to a child in words, we first give it the indeterminate idea, the abstract idea, and then come to the concrete thing whereas the filmed presentment of an idea, a fact, a story, a journey, at once impresses itself on the child's brain in a precise and determinate form. All this is accomplished without effort and what is even better, in a pleasant and entertaining way. In addition to this, the darkness of the room helps to concentrate the attention.

In geography, for instance, the idea of the sea and of mountains takes a clear, exact and definite form in the child's brain. The picture, devoid of anything that may distract its attention, becomes a part of its mind. It constitutes a pleasant but at the same time useful exercise of the faculty of attention, and as it is good for the development of any faculty to make it work independently of the others, it may be observed that at the cinema the attention is concentrated solely on the film.

A boy, who is unconsciously accustomed to concentrate his attention on the mountains when they appear before him on the screen, will do the same thing quite naturally when he happens to go to the mountains in his native land. He has already learnt to concentrate his attention on this object and by analogy and the spirit of imitation this pro-

cess will be of use in fixing his mind on the other beauties of nature, to the undeniable benefit of his faculties of attention and observation.

The Cinema in Learning Languages. The utility of the sound film in teaching foreign languages has been abundantly illustrated. (F. Juer Marbach).

By means of superpositions and the simultaneous representation of sound, sound images and gesture, the cinema can make the teaching of modern languages both easy and pleasant, and what is more, it can stress details such as the use of prepositions, which are so difficult in languages that are not our own. It serves for the association of the mental image with symbols and sounds of the spoken language, and further, it exactly represents the thing to which the word refers.

A boy will read on the screen the word describing the object or action represented: table, seat, etc., walk, eat, take, gather and so on. Naturally, he must always be taken gradually from the simple to the complex.

These words will correspond to something real in his mind, and we thus have the association impressed on the brain automatically and without fatigue.

This method is particularly useful, in our opinion, for learning the exact meaning of words, which is such a rare thing nowadays, not only among students, but also among learned persons. Certain schools manage to give a practical teaching of languages very rapidly by an objective method, whereas in colleges the students cannot even express themselves properly after years of study of a foreign language.

Projections, and Quickness in Perceiving Phenomena. The cinema sharpens the faculty of observation, and teaches us to fix it quickly on what is happening on the screen.

Absorbed by their interest in the scene, the children, who are now in an eminently receptive state, immediately observe the things that strike them. There is nothing to distract

them in this moment, and the movement and phenomena succeed one another on the screen with such rapidity that they cannot stop to observe them slowly if they do not want to lose an interesting part of them.

This constitutes a very useful mental exercise for children, whose mental faculties act slowly when they are tired or distracted but quickly when they are interested. Their spirit of initiative is thus strengthened, and the mental exercise is good for them.

In this way, the boy creates within himself unconscious reflexes of perception. These reflexes, fixed in his subconscious mind, will afterwards function automatically. They will not only manifest themselves, but will be simultaneous with the reproduction of the object or scene that aroused them for the first time. An association of ideas will thus be formed that will call up the conception as soon as the visual image is presented before him in fact, and the mental exercise will develop the liveliness of his perceptions.

The Faculties of Observation and Precision.

Children do not pay much attention to the passing of the seasons, even in the country. Rain, clouds, wind, differences of temperature make little impression on them. They know very little of the earth, the woods, the animals that surround them, or the stars that shine in the sky. And this is even more noticeably the case in towns.

It is just in this that the film can be so useful, for it develops the faculty of observation.

Children do not observe the phenomena of nature because they are distracted by their games, by the details of their daily tasks, by their habits, which follow a regular cycle; and they do not learn, therefore, to use their primordial faculties.

The film eliminates these outside distractions. When the life of the bee is shown on the screen, for instance, the child's attention is drawn to what is happening there. It sees the bee pass from flower to flower, collect the pollen, separate the wax and set it aside, form the cells with it, fill them with

honey, cover them with a uniform layer of wax, and then begin its work all over again.

All this manifestation of life arouses the child's interest, takes his fancy, teaches him how to observe, that is, how to look at a phenomenon of fact and to analyse it apart from all its exterior contingencies. The cinema is therefore of great use to the student, because, far from suppressing the direct observation of things, it teaches him to observe them of his own initiative. When he is alone, if he sees a bee, he will remember the whole interesting life of this insect, its work and the organization of its hive. He will instinctively note, then, the details he may have missed on the screen; he will try to look at the bee's operations more closely, and the spirit of observation aroused in him by the cinema will thus be developed.

The pupil will learn to observe the germination and growth of a plant, the opening of a flower, the life of animals in water, in the air, in the fields. In his daily life he will compare what he sees with what he observed on the screen, and he will inevitably become interested when he realizes that he had not examined these things before with the necessary attention, being distracted by everything around him.

Having thus acquired the habit of distinguishing the special attributes of one animal from those of another, and so on, he will henceforward look for these differences unconsciously, and so will continue to develop his faculty of observation.

"There are people who pass through life with open eyes, seeing nothing" (Blakie). How many adults there are who suddenly discover with amazement that for years they have been seeing an infinity of things which they have never noticed! This happens because, although they possess the organs of sense, they have never sufficiently exercised them. The child must therefore be taught to understand what he sees, and to see everything that lives around him and may interest him.

To this end, the several senses must be so developed that they yield the utmost of which

they are capable. The necessary time for analysis must be allowed, and therefore we must proceed methodically. It is useless to try to force the mind to cover too vast a field all at once.

The child must be first accustomed to consider a certain detail : a flower, the colour of a flower, its form and dimensions. He will learn to differentiate the several elements constituting a conception. He will then note the difference between two flowers of separate species, and thus, after having unconsciously learnt the details, he will come, likewise unconsciously, to generalize them and observe what is around him without effort : simple objects, more complex ones, the aspect of clouds, of the stars, of the firmament then, following this, a storm, the clear sky of summer ; and finally, he will observe much better, because he will have formed, between his senses and his subconsciousness, automatic reflexes that will enter into play from this moment under the influence of external things.

Projections and the Memory. The film can be especially useful in this field by facilitating the assimilation of ideas.

A picture or drawing, with a few brief words of explanation, will give a better understanding of a machine or an incident of history than pages of print. And when one learns easily, one is spared the effort of assimilation, for the brain that is not fatigued is much more receptive.

The most dangerous rock that is encountered in the course of modern teaching lies in over elaborate programmes, which do not give the memory time to fix the concepts that follow one another too quickly. A tired brain cannot store up ideas ; and as children understand best what they see, this psychological peculiarity should be utilized to teach and educate them with as little fatigue as possible. This system is bound to make the teacher's and educator's task easier, too, for education consists in causing knowledge to pass from the consciousness to the unconsciousness,

and nothing fills the mind more easily than pleasant and restful teaching.

Remember the principle of association, in virtue of which, when two impressions have been produced simultaneously, it is enough for one of them to be presented to the mind afterwards for the other to be immediately connected with it. It is the function of the memory of facts at work, and the image of facts can be made much stronger by the emotion that a living picture arouses.

Projections, and Development of the Creative Faculties. In the country, where the daily manifestations of life are very restricted, the screen presents possibilities to children of which they could form no exact impression otherwise.

Country children have open minds, they are pleased to learn new things, see new things, and when they return home, their great pleasure is to try and reproduce railways, make windmills on little streams, use anything they can get hold of to imitate whatever they have seen : foot-bridges, pioneer works, the cottages of colonists or Alpine huts, etc. They try to reproduce, with the imperfect means at their command, the objects they have only seen in pictured form. This is a magnificent mental exercise, which arouses and sharpens the creative faculties.

Children in towns, who are accustomed to move in the midst of crowds, would be lost if they found themselves alone in the country and would be frightened of the first animal they met.

The education to be given to them is to arouse and develop the idea of suiting themselves to their environment, to show them what they ought to do if they get lost in a wood, if they fall in the water, if they find themselves near a forest on fire. They must be taught to seek for means of being of use to themselves and others.

The cinema can enrich the mind of the child with innumerable new ideas and teach it to make things that may be useful to it. Necessity itself will encourage the develop-

ment of its creative faculties ; and there are examples of this that could be multiplied *ad infinitum*.

The Cinema and Character.

It is in the field of character especially that the educational cinema goes beyond the limits of the teaching film.

It has a great influence on the character of children, on account of the fact that their great sensibility reacts to it without their having the adult's possibility of discrimination. Emotion arouses an analogous reaction, encourages the formation of images and of the sensations aroused by a scene or an entire film. This reaction is thus connected with the phenomenon of imitation.

Observe the spectators during a football match, and see how they make their muscles tense at critical moments in the game, and unconsciously follow the movements of knee and foot that the player makes or should make. This shows that emotion creates a pronounced state of receptivity, and that it also necessarily awakes imitation.

Now, imitation does not confine itself to the physical and muscular parts only ; it is more especially notable in the sensory, intellectual and moral fields. Demoralizing spectacles depress the character, giving rise to impressions and ideas which will become fixed in the subconsciousness and impress an unconscious and involuntary tendency on it through the repetition of demoralizing acts and scenes.

Inhibitory restraints that are the result of education or of natural instincts, will counteract these impressions, but the stronger the impression the greater difficulty they will have in counteracting it, and they may not succeed after all, and in the end may leave the field free to morbid and harmful impulses.

The production and repetition of these mental processes create susceptibilities and habits which influence and form the character reacting on the conduct of life. Good habits which have been formed by a succession of previous acts and suggestions are the most powerful restraint on evil reactions. They

constitute a reserve of sound, moderating concepts and ideas which can act as restraints on the worst instincts, ideas which are aroused in time to counterbalance bad impressions. In other words, they constitute a system of salutary reflexes.

The individual's way of living and behaving is due to the number of ideas of this sort that he possesses and their quality. Nothing helps the acceptance of an idea so much as the pleasant, uncontroverted suggestions the child receives from the cinema. If the film is a moral one, the child's mind will be enriched with sound ideas and moral restraints on the worst instincts. The film will have a good influence on his character and conduct.

It is in this way that the cinema influences the formation of character. It arouses the feelings that lie dormant in the mind ; it penetrates the mind and soul of children, who are averse to every form of written education.

Some magnificent films could be made out of the old tales that have passed from generation to generation : tales of the most noble legends of humanity, stories from the Gospels, Aesop's fables, the fables of La Fontaine, etc.

Possible Psychological Dangers of an Exaggerated Use of the Cinema in Schools.

If the cinema is to maintain the place to which it has a right, both teacher and pupil must be convinced that

it is not to be considered as a simple entertainment, but as an aid, an explanatory means, an animated repetition of the master's lesson, just as a chemical or physical experiment completes a lesson on the theory and is frequently necessary in order to make the latter clear.

If the pupil should be inclined to look upon the school cinema as an entertainment, and should compare it in his mind with the public cinema, he would soon come to the conclusion that the public variety is much more interesting and amusing, and would end by hating the school cinema. The utmost discretion must therefore be used in dealing with this aid to teaching. Illustrations may be used to enrich a classic, but a proper

equilibrium between pictures and text must be maintained.

Care must be taken to avoid tiring the children when using the cinema in school. The sittings should not be too long, nor repeated too frequently. If the children were to remain in the darkened hall too long, their nervous system would be tired, and the film would end by no longer holding their attention.

We are of the opinion that two hours weekly would be just about right for this purpose. It could be divided into half-hour projections every other day, if necessary, but there is a risk of the film becoming mechanical when broken up in this way, and we think it is much the best arrangement to condense all the matter that is to be used on the screen into one projection weekly.

It is useless to discuss the pros and cons of film versus lantern slide. Each system has its advantages, and the ideal thing would be to use both alternately and in combination, according to need. Lengths of slow film can also be interpolated in certain cases, or the projection can be stopped to give the pupils time to assimilate and appreciate the scene or object presented.

We must mention here a danger to be guarded against in historical films. Only too frequently the pupil, seeing a historical film, says to himself that the actors performing the part are only men of our time masquerading as men of the times gone by. Such a thought arouses the critical sense that is so highly developed in children. This must be avoided by informing the children beforehand that the only object of the projection is to help them to understand text books and classical writers, so that they will realize they are not going to see a simple entertainment, but an instructive film. The prestige of all teaching methods must always be maintained.

It is quite possible that more time may be taken over a course by adding the cinema to the theoretical teaching, but this difficulty can easily be overcome. In fact, there would be no real waste of time except in the case of

very impressionable children, who might react abnormally to unrealistic films that have not a close connection with the theoretical part of the lesson. The film must therefore be suited not only to the age, sex and social environment of the pupil, but also to his special temperament. Normal children may benefit by films intended for abnormal subjects, relatively, but the opposite certainly cannot be said. It is undoubtedly the case that too much cinema may distract the pupils from some of the theoretical courses, and the master must therefore use his judgment and the film in due measure.

The cinema is, without question, a valuable aid in the educational field, from both the intellectual and moral point of view; but, used without discernment, the best method in the world will fail in its aim. Moralists, teachers and neurologists must therefore combine their efforts to reach perfection in this field.

Visibility and Illu- mination.

The eyes must not be tried unduly or fatigued. Only too many of our children suffer from eye trouble as a result of the continuous strain of reading badly printed books, books placed on desks that are too high or too low or are ill-lighted. The same trouble may exist where the cinema is used in schools. The children should not be placed too close to the screen; the picture should be exactly focussed on the latter, and it should not flicker. The light should not be too glaring.

The pupil and crystalline lens of the eye must not be strained to adapt themselves to the image passing before them, or the eye may become so fatigued as to give origin to some form of short sight. The retina must not be allowed to suffer irritation through excessive luminosity. Tension of the external muscles of the eye may cause painful reactions and even headache. The screen must not be placed so high that the children have to throw back their heads in order to see, thus straining the muscles of the neck, nor so low as to strain them in the other direction.

All these faults may pass unobserved for a

long time, injuring the children's well-being and interfering with their assimilation of the lesson and, if continued, causing disturbances of adaptation that may influence the whole of their lives.

Sub-Titles and Teacher's Lessons.

Let us take the case of an adult as an example. Go to a cinema, as A. Gemelli did, with the determination of resisting the suggestiveness of the environment and keeping yourself under firm and active control.

If you find the conditions customary to these places, namely, a quiet, dark hall, not much music, and what there is suited to the picture, and an attractive film, your power of resistance will be gradually undermined, and the moment will come when you will be completely absorbed in what is occurring on the screen. If you are to reach this point, your attention must not be distracted, either by long and unsuitable explanations, or reactions that have nothing to do with the film, or music that is too loud, or imperfect darkness in the hall.

The child likes to get away from the world of reality and enjoy the world of fiction; its enthusiasm for marionettes is a proof of this. It should never be asked to look at things that are above its comprehension.

This is a difficulty which must be solved by the teacher and educator. The comments made must always be suitable, of course. The pupil must be accustomed to remember technical expression, and scientific name of a flower or object, and it is also very useful to tell him at the same time, the popular name, which will interest him much more. Anything pedantic must be avoided, for it disturbs the dreamlike sensation produced by the film, which is so favourable to the impression of ideas.

We psychological physicians have a daily experience of this sort with the nervous, morbid, excitable little patients whom we have to tranquillize. And we know that a favourable environment must not be disturbed by extraneous impressions.

In a word, sub-titles and the lesson given

by the teacher must be suited to the film, age, social condition and sex of the little spectator, and also to his psychic development.

The Educational Cinema and Abnormal Children.

This is a very difficult subject, necessitating distinctions that should be treated in a separate work.

Let us first separate children of simply tardy development from abnormal children; the former can be classed with normal children of few years.

Those abnormal children, who may be considered as such only on account of their psychic deficiencies, do not differ from normal children except in regard to the psychic faculties, and are of but slight interest for the purposes of the present examination. We can show sound films before blind children with the greatest success, because their hearing is much sharper than that of ordinary children and they are extremely receptive, so much so in fact that they are apt to be very impressionable.

Children who are mentally abnormal are, on the contrary, very difficult to educate, and it must be admitted that the really magnificent efforts that have made to educate them in every country in the world have not met with the results that might have been expected. There is no reason to be discouraged, however, for the few successes that have been obtained here and there are sufficient to justify the continuation of these efforts and the making of fresh ones.

The cinema is likely to have a great influence on the abnormal as on the normal child. It is a means that must not be given up, even though there may be a doubt as to whether its effects will be good or bad.

There is a class of abnormal children which cannot be passed over in silence, namely the morally diseased. These are the most difficult beings with whom the educator has to cope; and it must be admitted that in spite of the money and effort expended in the attempt to improve these deficient, in spite of the numerous institutions established for the housing and training of such children,

the results obtained do not compensate the trouble taken. When these children are gathered together in communities, they become worse instead of better.

This, of course, is not a reason for relinquishing the task, but rather for redoubling our efforts and refusing to be discouraged.

If there is even the slightest chance of deriving some benefit in this field from the cinema, we should make the utmost possible use of it for that purpose.

Just as abnormal children constitute a danger to the normal children with whom they come in contact, on account of the contagion of example and the corrupt acts they commit, so abnormal children are themselves liable to be influenced by anything that affects their senses, although they may be refractory to simple feelings of average intensity. It is through the senses, and therefore by means of a spectacle, that physical impressions produce the greatest effect.

In order to see what work is to be done, we should begin by classifying abnormal children in four separate groups :

1. Those affected by moral atrophy ;
2. Those suffering from moral perversion, with an irresistible tendency to evil and without any restraint that keeps them from yielding to what they themselves know to be wrong-doing ;
3. Those suffering from moral inversion who cannot be trained and are anti-social, doing evil for evil's sake ;
4. Unstable characters.

It is with this last class that there is most hope of gaining some result, on condition, however, that the attempt to train these impressionable, unstable and changeable characters to make persevering and continuous efforts is maintained without ceasing, and that similar efforts are made to prevent the development of their infirmity.

With regard to profoundly abnormal children, they are unable to carry out either the central transformation or the mental rectification necessary to connect a personal idea with the view of an object, in the variety of conditions under which an idea or an object

is presented on the screen. There is no rectification of the sensory elements in this case. There is not sufficient discrimination between the sensation, the impression received by the senses and the representation or mental perception. It is a question of fleeting impressions, which are of the greatest importance in the cases under examination. The visions presented to these children must be the simplest possible, and the visual perceptions must not be distracted by a music that would detract from its reality.

It is equally obvious that excessive comment would spoil the interest of a fine film in these cases. Nothing fatigues the ordinary man more than to see a film where the actors speak a foreign language, with explanations in his own tongue projected on the screen. This necessitates a useless effort of the auditory centres, which lessens the benefit the spectator might derive from the film, and also distracts his attention. If this is the case with normal adults, it is obviously much more so with abnormal children, in whom such an effort would produce irritation instead of restfulness and end in mental fatigue.

The human being is interested in what resembles him, and simple views and performances and ideas are the proper thing for simple minds. The films intended for abnormal children must therefore be simple, although they may legitimately follow a story.

In order to avoid fatigue, the scenes must not be hurried, nor must pictures be shown that might distract the elementary mind of the spectator.

A certain degree of sentimentality is quite permissible. The abnormal being is more accessible to sentiment than the normal, and it will often be necessary to make use of sentiment to induce the former to accept an abstract idea. It must not be forgotten, however, that nervous children are more impressionable, or rather, they are impressionable in a different way from normal ones. More prudence is needed in their case, and it is therefore useful to know what manifestations are likely to be produced.

Nervous states are shown by the intensity of the character reactions, and unfavourable impressions last longer in nervous than in normal children. The reactions of the character are often paradoxical: a thing which produces a pleasant impression on an abnormal child may be unpleasant for a nervous one. We find this happen in the field we are interested in, the case of colours and noises. Care must be taken to avoid exaggerations of the more emotional reactions to laughter and weeping seen on the screen, which may give rise to regular crises or attacks of rage. Nervous children may be frightened into fits in this way.

Cinematograph projections may give rise to a form of delirium in children with a predisposition that way, to night terrors, to talking in their sleep, to impulsive outbreaks, insomnia, extravagant talk, obsessions, uncontrollable agitation, fits of trembling, paltitation, headache and forms of hypersensitiveness of the optic nerves.

These phenomena are manifested only in exceptional cases, and we therefore merely mention them in passing, but the conscientious teacher must always be on his guard and repress them as soon as they appear.

Projections, and Excessive Brain Fatigue.

There is not the slightest doubt that brain fatigue exists and becomes more and more frequent during school courses, and it is quite useless to try to deny this fact. We see evidences of it every day in our consulting rooms.

It is due first of all to the excessively heavy school curricula, to methods of teaching which are based too much on the study of books, to lack of variety in intellectual effort, to lessons that are too long, to the difficulty of the subjects that have to be assimilated and their too great condensation.

It is not only the pupil who suffers from this form of fatigue; the master also is a victim to it.

The evil is shown by an excessive irritability, by a form of boredom at the very thought of studying, by physical instability,

a difficulty in fixing the attention, a weakening of the memory and an incapacity to acquire and retain ideas. And these states are followed by ill-temper and a feeling of discontent and incompleteness.

If not attended to in time, these symptoms may lead to nervous exhaustion, and, finally, to mental symptoms that approach precocious dementia, characterised by what is usually called "lack of will power", but is rather the unconscious refusal of the will to assimilate any new mental equipment.

Laziness is often nothing but a fortunate reaction of the tired organism, which refuses to work any longer. A physiologist once gave voice to this paradox: "happy are the idle". This, however, is quite comprehensible, since a too zealous child does not react by refusing to make an effort, but goes on from effort to effort, from fatigue to fatigue until it is exhausted, and in this way reaches a state of intellectual disaster which is often irremediable. There may still be some anchor of safety, but only on condition that the child enjoys a period of complete rest together with a medical treatment that must be rigidly followed.

In this field, the cinema might be a valuable ally of the educator and teacher, with the variations it can bring to the methods of education and instruction, its inherent fascination, which has such a cheering effect on the child's mind, and the facility it affords the teacher in expounding his ideas and the child in understanding and assimilating them.

What a difference there is, for instance, between a badly printed and badly expressed, unillustrated text-book and one that is well printed on good paper, with the subject carefully explained, and illustrated by engravings that arouse interest and assist the understanding of the text!

In the same way, a lesson illustrated by suitable projections completes and facilitates the work of instruction and education.

Conclusion.

The screen, therefore is a powerful aid to the educator and teacher. Perhaps we may be permitted to add one

or two suggestions that may be of use in future experiments.

When observing children, the educator must disregard his own personality, and study the children as much as possible in their own environment, in their customary reactions. He must mistrust unconscious suggestions; he must remember that only too often the child will answer as if he wished to make an impression on the teacher. The child is never the same in public or in school as he is when with his family or alone; he always has a desire to show off.

Precocious children may find encouragement for their worst instincts and bad habits in film performances, but that is not a sufficient reason for giving up this educational possibility. A negative criticism leads nowhere. What is necessary is an exact understanding of the possibilities of the screen. The most solid education is that founded on experience; and each teacher must indicate the results in his particular field of action, so that all may benefit by them.

Whereas theatrical performances are restful and give pleasure by appealing to our aesthetic sense, the cinema gives the sensation of a dream, of abandonment, of repose. The superiority of the cinema lies just in this fact, which is based on the law of least resistance. It takes us away from reality, and makes the conviction of the things we have seen more solid.

The rapidity of movement, the diversity of the scenes, even the mannerisms of the actors, draw us nearer to the sensations felt in a dream; each scene contains its own logical explanation. This is quite enough for man, who does not feel the need of relief in the figures. The scenes succeed one another, and impressions are independently formed of the details of reproduction. The interest of the cinema lies in the story and in the

subject of the film, not in certain technical details.

An educated person who goes to a fine theatrical performance will be bored if he is under the influence of his own troubles, but at the cinema, in spite of the greater power of resistance and inhibition, he will find a fascination in the darkened hall that will conquer him little by little and make him forget his worries, while his power of inhibition will completely disappear.

When the light is turned on again, he will have the impression of waking from a dream. The cinema reposes and suggests, and the educator should profit by these facts to teach and educate without fatigue.

Practical Proposals. As pedagogical researches of a psychological order are now carried on extensively in the field of film education, they must be completed by experiments made before the screen, if we are to have well conceived and well produced films and practical methods for their utilisation (*Félix Lampe*).

We must therefore make a continually closer study of the influence of cinematograph projections on the various classes for abnormal children: those suffering from physical and mental abnormalities and those who are morally diseased.

It would be of great use to find the type of projection suited to children at different ages, for teaching them to observe objectively and interesting them, and also to find which films are best for boys and which for girls.

Observations on the kind of projection most likely to stimulate the several intellectual faculties should be continued; lightening programmes; and facilitating the teachers' task. Such conclusions, should as far as possible, be based on individual experience.

THE CINEMA AND ABNORMAL CHILDREN

Report of the ORTHOPHRENIC NORMAL SCHOOL OF ROME.

In connection with the *Rome Orthophrenic School* for abnormal children, there are 15 out-patient clinics known as "Classi differenziali", or special classes operating in collaboration with the six schools of the municipality of Rome. These institutions receive 375 children of both sexes from the age of 6 to 12 years inscribed in the pupils' lists of the first three elementary grades of the city's schools. The opening of these special classes only begins in November after the pupils have been picked out by the teachers of the ordinary classes and notified to the authorities. The children are attached to the special classes as the result of an examination given by specialized teachers attached to the Orthophrenic School. Teachers from this school see to the education of these abnormal children.

The children subjected to the regime of these orthophrenic grades must be considered *abnormal in the matter of temperament* more than anything else, that is, they are intolerant of such mental effort and discipline as are required of pupils in the schools of the Governorship of Rome in the elementary grades. Many of them suffer from physical disturbances of one kind or another, and the majority from an exaggerated form of sensitiveness which is revealed in irregular attention, impulsiveness and contrariness.

In view of the time-table and the general conditions under which the scholastic work takes place, it is rarely possible for the school-children and their teachers to witness motion pictures together in one of the specialized classes for abnormal children.

The teachers have answered inquiries laid before them with regard to the working of the cinema classes for abnormal children and the attendance of the latter at the same. The following is a summary of the teachers' opinions.

(a) The poor economic conditions of the parents of the children who frequent the specialized courses organized in connection with the *Rome Ortho-*

phrenic School do not permit of the pupils visiting the cinema regularly. In some of the classes though, teachers have noticed a certain frequency of attendance, especially among the boys.

(b) The boys prefer detective crime and adventure pictures, while they like comic films greatly. The third elementary class shows some preference for historical films. The girls prefer films with a sentimental background.

(c) Only one of the teachers observed subsequent acts on the part of the pupils that called for reproof. All the others teachers agreed that the films produced no evil consequences among the scholars. There was a tendency to imitate the manners and tricks of some of the actors, especially Charlie Chaplin and Tom Mix among the boys, while some of the girls occasionally made attempts to imitate some of the mannerisms of the great lady stars of the film.

(d) In general it may be said that the replies do not agree. Some of the women teachers deny that the picture have any beneficent influence on abnormal children. Other, again, think that the children derive some moral benefits from seeing motion pictures. Some teachers specify these benefits as touching things like patriotism and encouraging the heroic sense, etc.

(e) Children consider the cinema as a most desirable entertainment. Their preferences are for such actors as Chaplin and Mix, whose tricks and mannerisms they attempt to imitate during their games.

(f) The interest aroused overcomes fatigue, and in some cases the interest is so lively that it is possible to show children the same film repeatedly without wearying or boring them.

(g) and (h) The majority of teachers, not having, as has been pointed out, attended cinema shows in the company of the children, agree that the pupils find sound films more interesting and amusing than silent pictures. The children, it seems, are also very fond of music, which has often obviously emotive effects on them.

"Hipparcus had inscribed on tablets situated at the cross-ways the chief precepts of morality in order to remind passers-by of their duty".

PLATO.

ESSENTIAL FACTORS IN THE MAKING OF FILMS FOR CHILDREN

By

Nazzareno Padellaro.

INSPECTOR GENERAL OF PRIMARY EDUCATION IN ITALY.

THE cinema for children, despite some sporadic attempts, is still in the hands of the amateurs. The prospect of its numerous possibilities has disorganized regular, continuous effort. It may seem a paradox to attribute the poor results obtained in this sector of cinematography to excessive enthusiasm. Enthusiasm which does not mean the beginning of a calm and planned action is only a stimulus or a tendency. Enthusiasms which follow in waves are not very different from rhythmic noises, which in other words mean a confusion that repeats itself.

Points in the Children's Cinema. I will refer briefly and in a summary fashion to certain elementary ideas which ought to help remove the attempts to build up a collection of films for children out of the hands of the amateurs into those of scientists.

Our first investigations ought to be directed towards what Lavelle calls "the dialectic of the senses". Studies of this kind are not much in favour. Biologists think them extraneous to their work, psychologists pass them by, and the philosophers despise them.

The researches and reports of the above mentioned Lavelle are almost unknown. A work like "La Perception visuelle de la Profondeur" which ought to be "The Dialectic of the Sensory World", the vademecum for those studying the questions of the cinema for children, is ignored.

Neither can it be argued that problems of this kind can be taken for granted, for that amounts to ignoring them, and no science can rest on ignorance.

Is the visual world an image and not a

reality? If an image, why is it an image? How comes it that the memory which carries all our past in us necessarily transforms successive actions into simultaneous images?

Why is this simultaneity spatial? Why and under what conditions is the sense of sight the sense of illusion?

Why is it that to distance oneself from objects in space is like distancing oneself in the past? (Parenthetically we may add: how many effects can result from a clear application of this principle!).

Up to what point is vision the concrete realization of the possible?

I have barely outlined a few points which ought to form a propaedeutic for those who really desire to proceed to the creation of a science without trusting in chance or inspiration.

Is a course in philosophy necessary then? No, a course in philosophy would be perfectly useless. What is required is a systematic research along the lines indicated.

I should not hesitate for a moment to refer those interested in the problems connected with the sound film to a work by I. Noguè "Site et Champ". Students of this subject should also have a knowledge of the works of Gelb and Herring.

Time in Relation to The Image. Another point of importance which must be faced is that concerning the valuation of time in relation to the image.

In order to set forth this question properly, I must notice some recent interesting theories which are beginning to be examined seriously in scientific circles. For instance, does

astronomical time coincide with psychological time. Is not the former perhaps the result of an abstraction? Is not concrete time really physiological time? If this be so, then it is useless to measure physical time in units of psychological time.

P. Lecomte du Nouy of the Pasteur Institute has demonstrated that young and old people, joined in the same space, live in separate universes, where the value of time is completely different.

For a man of 50, time passes four times as fast as for a child of ten years. Adults who condemn children to remain five hours a day on their school benches never realize that, psychologically and physiologically speaking, five hours amount to 20 hours for a child. Then they are surprised at the impatience of young things. When they realize these facts, will they still insist on the school hours and the curricula at present in vogue?

If we add to the foregoing considerations further observations relating to the different duration of the attention when it is auricular and when visual — the relation is in the ratio of 10 to 40 — the necessity of solving the problem of the pupil's scholastic life with the systematic introduction of the cinema become more evident. Its use, moreover, should not be regulated by caprice, chance or circumstances, but according to a well thought out programme based on the curriculum.

The Adult Cinema in the Impressions of Children.

I will now turn to another kind of consideration. The cinema is based on emotion. The emotional qualities and content of a film are the factors which determine its success. The sentiment informing the picture is expressed in scenes and action. The scene is like the solution of a problem with no unknown factors. It is indeed an operation rather than a problem. Our first efforts, in my opinion, ought to assume the form of taking the educational cinema destined for children away from the emotive plane and placing it on another.

There should be a law preventing children

frequenting cinemas intended for adult persons. It is difficult to imagine the immoral contagion that spreads from even one of the more innocent type of erotic-sentimental films. If the child is ingenuous, he becomes bored and disgusted with the series of embraces, and has an instinctive feeling that a mystery that should be revealed as an impulse is being cut up into synthetic fragments of film. There is for him in such pictures a sensual incentive which he does not understand. Who would think of taking a child into the company of fast women, and what in most cases is the cinema star when playing a love part but such a woman? I have examined thousands of exercises and essays in which the pupils have narrated their Sunday impressions after visiting the cinema. Some of these studies do not differ very much from the yelping of little dogs taken to a concert hall and irritated to vocal rivalry by the sound of one of the instruments in the orchestra. Other essays show that a period in a young person's life has begun when hypocrisy and double meanings cover up vice. I will not touch on the hygienic considerations which are self-evident and can be seen in the ill effects deriving from over-crowding, bad air, smoke and nervous excitement.

Making Films for Children to Suit their Psychology.

If we are going to keep children away from the cinemas for grown up people, we must undertake the preparation of films for children.

This is a point where it seems to me ideas are not very clear, nor is there much agreement as to what is wanted.

It is vaguely believed that films which amuse and instruct children are the best that can be hoped for.

Amuse and instruct: these are two antithetic terms. It is no paradox of mine to state that what arouses interest does not instruct, while still less instructive are the things that amuse. To believe we can eliminate effort in the spiritual formation of any being is only a sugary pedagogic Utopia.

So called interesting pictures are without any spiritual interest. Then, in any case, how are we to organize this programme of an interesting cinema? According to the common opinion, what is interesting is emotive. Now there are very strange ideas existing about emotion. It is often thought that emotion is born where the conception of moral values ends. The truth is otherwise. Every emotion is the somatic translation of the struggle engaged in between two opposed concepts. To seek to accumulate acts and exterior words without stimulating the ideal nucleus of an idea is a vain undertaking. Nothing is less emotive than what germinates beyond the field of values.

This is why, for example, a great part of the literature designed specially for very young children is despised by them. They look rather for the human touch where the adult has traced some moral concept or some lively argument.

What has happened in the case of infantile literature, ought to serve as an indication in the preparation of films for children.

It is argued: let us make special versions of masterpieces universally recognized as such and make motion pictures of them. We cannot go wrong. But, is it possible to extract a masterpiece from another masterpiece? Can we, for instance, build another Milan cathedral with the stones of the famous *duomo*? I think not, and the same thing must be said of the masterpieces of literature. What was created as literature will only have its proper appeal in the pages of a book.

Without waiting for the general verdict on the film recently released in America, *Alice in Wonderland*, I am now prepared to state that the youthful Anglo Saxon who has read the book of Lewis Carrol will find the characters he loves much in the condition as if they had given their blood for a transfusion. The conclusion is simple. Film masterpieces must be born film masterpieces, that is the piece must be conceived and executed for seeing. Loans from literature are dangerous. I can understand that in Italy we may project *Alice* and read *Pinocchio*, while in America

they should read *Alice* and film *Pinocchio*. This is the only real intellectual exchange possible, and its advantage lies in overcoming the language difficulty and the different conception of things, transposing the work of art on to another plane. If anyone feels the desire to read the masterpiece in the original, so much the better. The desire will lead the student to learn the language of the original work. It is evident that this question of intellectual exchanges applies to other kinds of exchanges, including those interesting the adult world.

Didactic Films. Two words on the so is called instructional film. There are a vast quantity of illusions and errors common here. Some people think that the cinema can explain all mathematical theorems and reduce all the demonstrations and problems of geometry to a collection of catchy motives. I must repeat that nothing can be learnt without effort. The cinema ought not to endeavour to eliminate effort, but rather to strive to make it productive. The vision of things begins its dominion where the word fails to penetrate. Natural sciences and the arts are the most suitable subjects for cinema teaching, as everyone agrees. One point that, in my opinion, has not yet been sufficiently considered is the possibility of increasing the potentiality of the word and informing it with meaning by means of the image.

We can express best that which we have seen, but it is not enough to have seen to be able to put what we have seen into words. It is necessary to create a series of synthetic and vocabular relations between sight and word.

The films that should enrich our linguistic store ought to suggest the word and the construction. They should therefore contain a very long series of legends that translate the pictures, and there should be recurrence in the sequences to avoid definite repetition. Humility is not only the first virtue in life, but also in didactics. There is no intellectual progress which can be compared to that great

step forward which the illiterate person makes when he learns to read. The merit lies all in the humble alphabet. The visual-phonetic relation is a mutual aid relationship. The great novelty and the great utility of the cinema ought to lie precisely in the fact that this relation, in which at one time numerator and denominator differed by a large number of units, can be reduced to fractions of practically equal terms. Spiritual harmony will gain considerably; there will be greater objectivity and less incoherence. The stock of notions will become enriched with less

fatigue and less loss of time. There is no truth in the fallacy that the child's world is a different world from that of the adult. The child does not understand the adult's vice, but admires and envies him his virtues. All that which is pure, generous, ardent, and heroic in the human heart is a kingdom of delight for the child. The child loves adventure because he does not understand intrigue, he loves the fable because he thinks that reality is creation, he adores the heroic since heroism is the vocation of every man.

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USE AND ABUSE OF THE CINEMA

By

Dr. Mario Bernabei,

ASST PROFESSOR CHAIR OF PEDAGOGY AT THE UNIVERSITY OF ROME.

I. Cinema and the Life of Today.

IT is no longer sufficient today in order to demonstrate an averagely respectable degree of culture to read the daily papers and occasionally scan the literary and scientific reviews. It is necessary to frequent the cinema. In all circles of ordinary culture it is imperative for a person having any pretensions to living even a restricted society life to be able to give his opinions on current pictures, criticizing this or that film and praising the sensation of the week. In certain circles which one might call intellectual there can even be observed a sort of rivalry concerning who has seen the most films, and is best acquainted with the movements of the stars.

The cinema has penetrated into our every day life as few other institutions have done. It has got into our blood and become one of the reagents of our nervous system. Look at the young generation. There is not a boy of our time who does not become intensely interested in three things : football teams, the makes of automobiles and the cinema. Every professor in these three subjects becomes a scholar, every scholar a professor.

I have no intention of regretting the happy times when the cinema did not exist. I am enthusiastic about the motion picture, and a keen admirer of Charlie Chaplin, the most gifted artist of our epoch.

My own personal culture for some considerable time has been indebted to the cinema for many things. I recognize that if in the vast sea of commercial film production there are some pictures which are not worth a penny, it is not rare for us to see others which compel admiration by their power and oblige us to think.

It is necessary to say this, because, apart from any unjust charges, I may be permitted to advance a little criticism ; to insert a trifle of doubt of a healthy and not ill-intentioned character into the mass of boundless praise and glorification of the film. Evil has never been anything else but a degeneration of good ; the abuse of the most healthy things may prove as harmful as a use of dangerous things. When we hear nothing but loud-voiced praise of the beneficent effect of the sun's rays, we are in danger of forgetting that it is the sun which sometimes causes sunstrokes.

2. Cerebral Hygiene.

We ought to accustom ourselves, I think, to speak of the cinema as one speaks of and considers coffee, tea, cocaine, that is as of a substance that can be pleasurable but is also dangerous, owing to the strong excitement it is capable of producing in the most delicate nervous centres. Those who are enthusiastic for the instructional and educational cinema as a new and most effective method to which children's delicate minds can be subjected ought to reflect on this point seriously. I am sorry to have to act as a damper on enthusiasms, but to adopt the luminous projection in a dark room to impress notions on infantile brains is handling a double-edged weapon, which can be both useful and at the same time can cause disaster.

The same thing occurs in the treatment of nervous disorders with X rays. The identical rays used in different doses can cure the disease when it exists, and cause it when it does not exist.

The origin of this idea is not mine. I found it for the first time in an article by Professor E. Pennacchi which appeared in this *Review of Educational Cinematography* in September 1930 (p 1084), and I must admit I was greatly struck by it. With his nervous, coldly scientific prose, Professor Pennacchi, who is a doctor in a provincial lunatic asylum, and therefore an expert in such cases, put his finger without error on a symptom of ill health: the symptom, that is, of child attendance at the cinema.

There is no question that this sore spot in the social body exists and that people are aware of it. Recent Swiss legislation (June 1933) is a proof of this, as we can see from the Draconian regulation issued which lays down that, apart from shows specially organized for children, no child or young person under 16 may enter a cinema hall, whether accompanied by an adult or not.

I do not think this is an exaggerated type of regulation. We cannot have children frequenting the cinema as and when they like. Apart from moral considerations of a more or less Calvinist character, we forget that the primary conception of education is biological rather than philosophical. If I subject my brain to periodical strains, I cannot be said to be educating it and improving it. The abuse of any organ means just the opposite of educating it.

Apart from any question of the morality or immorality of its content, the film, beyond certain limits, acts like a narcotic, and any abuse of it is therefore unhealthy and undesirable. The infantile brain, a delicate organ in process of development, must be safeguarded as much as possible by law from all such dangerous influences.

These facts ought in my opinion, to be kept well in mind by those who, carried away in a burst of enthusiasm, would like to *cinematographize* all teaching from top to bottom. The cinema is, in a way, like arsenic or strychnine. If we want to make use of it, we must administer it in minute doses. Posology is a recent branch of medical science, but one of fundamental importance.

What is the idea which inspires with so much enthusiasm all the ardent defenders of the instructional cinema? That the cinema amuses and does not weary. It will be easy then — it is argued — to make the child learn with pleasure by its means many of those things which he now learns from books without any pleasure and with considerable fatigue.

I will consider the scarce intrinsic value of knowledge acquired without any exercise of the will and without effort: like the English learnt with a gramophone through the sub-consciousness while shaving every morning. It is a mistake to believe that looking at a motion picture on the screen does not cost any fatigue. The pleasure we derive may disguise the most enervating of all kinds of fatigue; that is fatigue of the optic centres which are placed in a most delicate position in the posterior part of the brain.

There is an unquestionable degree of fatigue in all the brain, in all the body, even in its muscular structure caused by witnessing pictures, and this fatigue can be registered after each projection by proper physiological apparatus suitable employed.

For me this is the most significant of the studies of Pennacchi. *Intense pleasure wears out our cerebral resources much more than any fatigue.* The cinema in fact is so intense a pleasure that it logical on this account to be mistrustful of it. *Cave voluptatem.*

3. Passivity and Activity.

A second objection, which is not less grave than the preceding one: *how are we to conciliate the totally active policy of modern pedagogy with the absolute passivity of the child before what is shown him on the screen?*

In opposition to the old methods in use in schools of the past which all more or less counted on the pupil's passivity all ready to swallow a ready made knowledge prepared in easily digestible doses, the stronger tendency of the new modern pedagogy holds that the student ought to be an active agent free to construct knowledge by himself. What he learns ought to be the fruit of his own spon-

taneous effort, the product of his mind and his hands. It is only on these conditions that what he learns will leave a durable impress on his memory, and make a *man* of him, that is a character

He must plane, saw, learn how to drive in nails, make something useful, even if it be only a table or a drawer, but he must do it with his own hands ; and even if he bruises his fingers or cuts them, it does not matter. He must *construct* : that is the essential thing. He must learn that to make always means fatigue and risk, a responsibility all the time, where all mistakes are inevitably punished by insuccess. There is a great moral teaching in all this, that is all the more efficacious because it does not come from a sermon but is allied with action.

In the same way, he must construct his culture, almost with blows of a hammer, if it is not to be arid erudition, a dead weight to be thrown away after the examination, instead of a lasting conquest, a live and integral part of the boy's personality.

All the plans, methods and systems that go by various names, from those conceived by our Montessori to Decroly and Ferrière from the Dalton method to that of Winnetka, although differing from one another very often considerably in their particular applications, are all of them remarkably in accord in proclaiming the absolute necessity of the pupil working himself, manually and mentally, at the construction of his own knowledge. This link joins the most diverse tendencies in pedagogy, from the realistic system of Kerschensteiner to Ferrière's eclectic method from Codignola's idealism to the system of Lombardo-Radice.

How are we to conciliate all this which may be called the most important conquest of contemporary pedagogy with the undeniable state of pleasurable passivity of the pupil-spectator in front of the cinematographic vision thrown on the screen? It cannot be denied that the pictures unrolls independently of his will and any creative effort of his, apart from that very small participation or disagreement which his desires or taste may

add to the phenomenon. The picture in its scenes and movement is completely removed from the creative activity of the audience. It is a fact shown in motion, and there is nothing to do but to take note of it passively.

In other words, the whole thing lies in sitting comfortably and looking on.

Of no value is the objection which might be raised that even when he is reading the pupil's mind is passive, and that the ideas in the book are the author's, and that therefore, following this argument, books ought to be excluded from schools.

In fact, modern pedagogy, following Rousseau, has not even hesitated to condemn books, and would like to see them, if not exactly suppressed, at least reduced to a bare minimum in view of the relative passivity in which the person who reads comes to find himself with regard to what is written in the book.

We can answer back, in fairness that reading a book is a much less grave sin of mental passivity than is generally believed, and certainly much less grave than seeing a film. Reading is an effort in itself, even if rendered easy by long practice, since in order to read one must have decided to *want to read*. Once the will is brought into play, it must continue its force, line by line, for there is no one to prevent a person putting his book down. Reading, moreover, only gives us words from which we ourselves must draw images and ideas. This is often hard work for the fantasy and the reasoning powers in certain books.

In the case of the motion picture, the case is quite different. That small amount of activity required to read a book is completely absent here. It costs no effort to sit still and watch. One must see indeed even if one does not want to as, for instance, in the case of films which do not attract one. In place of the word, the vision on the screen gives us the image all ready made, a succession of images relating to a significant fact, all shown in a way that makes understanding perfectly easy.

To take children once in a while to see an instructional film will certainly cause no great harm, but to base all scholastic teaching on the cinema, as some people would like to do, means nothing else but returning to the old systems which counted upon the physical immobility and mental passivity of the scholar.

4. The Cinema and Hurry. As we can see, the two fundamental objections that can be raised against the efficacy of the cinema as an instructional and educational means are simple but serious.

I will repeat what I have said : a film shown in school to the children once in a way is all right. But if by the instructional and educational cinema we are to understand a special kind of cinema to be introduced regularly into the school for the use of the children as the most efficacious means of education and teaching, then I am a total sceptic as to results.

We all know the curious phenomenon in virtue of which even the best things suffer in that as soon as they are introduced into the school, they immediately become boring and wearying. What is boring is quite non-educational.

The humble blackboard where teacher and pupil design the desired figures with their own hands is sufficient in the majority of cases. It answers the requirements of being easily available and requiring some effort, which is not the case with the cinema. Hand and eye must be used together and gain practice in this way. It accustoms the vast aspirations of a human being — always by nature a magalomaniac — to be content with little, which is one the best things one can learn of life. I do not look forward with any pleasure to see it substituted, out of a crazy love of modernity, by a means which is technically superior, but morally much inferior.

In other cases, the fixed projection, the magic lantern of our youth, with or without those colours which the cinema has not yet

given us, is more useful than the film. In teaching the history of art, for instance, the fixed image, instead of being tiring, holds the attention better, assists the memory, while the moving picture does neither.

Even a simple drawing, a well made design, the photograph in a book are often enough better than the cinema for supplying that indirect intuition of things which it is hard or impossible to obtain directly. The drawing and the photograph are there on the page, with their characters, which are always the same, fixed in a settled attitude, at all times and seasons. We look at them time after time weaving our fancies round them, so that eventually they become as familiar to us as the persons of our household. What did they do before ? What will they do in the future ? Count Cavour who looks at us in a thoughtful way through his glasses is not only the able diplomat of the Crimean war, but is some one who asks us each morning as we open the book of history : " Well, have you finally made up your mind to go over that lesson ? " Thus in front of a simple illustrated page of a book the child's mind is led bit by bit to dream and reflection.

This is alas ! not the case in the cinema, where everything is fleeting and nothing lasts. Here every impression is the passing impression of a moment, a typical expression, if you like, of our century, where speed is a fundamental canon, and the breathless rapidity of actions disguises superficiality, precariousness and the rush of all feeling and thought.

5. Instructional and Anti-educational Cinema. For me, the most serious worries of the educationist in the matter of the cinema are to be found *outside the school rather than inside.*

There is no need to create the instructional cinema, for it already exists. The kind of cinema which some people would like to make especially so as to introduce it into scholastic buildings could not be other than a copy, an unsuccessful imitation, almost a

parody, something so instructive and pedagogic at all costs that it would cease to be cinema.

The public, the vast anonymous mass that crowds the cheaper seats of our cinemas becomes a child again in front of the silver screen, and swallows everything offered it. Films of every kind follow one another on our screens. In some, the moral intention is clear; in others it is only a mask to hide something unworthy. The infant public undergoes the completest mental subjection. It is dominated by the image, a prey to orgasm and nervous tension.

There are an infinite number of things which are not taught in schools, and these things the child is most anxious to learn. In many of these things, the cinema is his best master. For example, how do grown-ups make love? We who talk and think such a lot about the healthiness of the race today ought not to forget that the cinema is often turned into nothing else but a real stimulus of the generative instinct, and that in the most dangerous way through the cerebral nerves. The motion picture often enough resolves itself into a mental aphrodisiac for adults and children, with this grave disadvantage that the adult has a reasoned experience to oppose to evil suggestions, which is quite lacking in the child. I propose to transcribe here what I wrote recently in this connection in my book *Sex Education* (*Educazione del Sesso*):

"The adolescent does not yet know in its reality the joy of the woman's kiss or embrace, and the cinema does little more than show him, as inevitable part almost of every film, the musical vision of these kisses and embraces.

"One of the most tormenting ideas of the boy is the knowledge of woman's *real* nudity; the *ideal* nudity of works of art being quite a different thing and incapable of satisfying him. The cinema spares no opportunity to offer him a photographic semi-nudity, which is often enough very near actual nudity. The instinct, half-satisfied, on the one hand in imagination, is exasperated, on the other, by

the lack of a real satisfaction. Female nudit-ies seen on the screen in acts of languid abandon and provocation return both in sleep and in the waking state to disturb the boy's imagination"

What are we to say, moreover, when instead of a lad a mere child is taken to the pictures? It is useless to object that the child is too small, does not understand, does not know. The child understands, knows, learns still more, and remains silent. If he does not know, he learns, because the atavistic instinct which is sleeping in him requires very little to awaken it, when it stirs up impulses and remembrances which no one has ever taught him.

To this we may add that the cinema projects on the screen an artificial world, a world that is radically false, both in the logic by which circumstances are joined together, and in the sentiments which animate the characters, and also on account of the sympathetic light which is made to surround things and beings which and who are often far from being admirable. Bit by bit, the young person comes to believe that the actual reality of life is shaped in this fashion. In the matter too of love and the sentimental life which concerns him and of his possibilities of attaining it and living it, the cinema insinuates into the virgin mind of the youth, *who is anxious to try things*, a completely false conception detached from social reality which may lead him to commit in reality grown up people's follies.

Even if the plot of the film does not contain anything immoral, it is nevertheless founded on incidents of an emotive character which keep the nervous system in a state of continuous tension. Let us consider for a moment the special delicacy of the undeveloped encephalic-spinal system of a young lad. This system is subjected to a strain to which we must add the impressionable nature due to the boy's age, the effect of remaining in a dark room, the music, the fatigue, the power of the excitant and the means of its employ and we cannot marvel if in all the so called cinematographic psychoses and neuroses which doctors have studied *the erotic obsession always returns with a constant*

frequency. This is all the more true when the subject is predisposed by hereditary nervous taint.

Conclusion.

We must take care of the boy and young person. We must concern ourselves also with the case of the adult who in certain ways and in certain things is no less a child than the child in years.

What is wanted then is an intelligent not a fanatical propaganda on the one hand to persuade the big public that too much cinema is bad, just like too much wine, or too much tobacco. It is strange to hear people sometimes boast of going to the cinema every evening after the labours of the day — *just to rest themselves*, they say.

We need also an energetic work by those charged with watching over public shows to control still better, not only the quality but the duration of the performances. Cinemas, even the best ones, ought not to be allowed to offer two entire film programmes for some trifling charge in an entertainment lasting three hours. Three continuous hours of the cinema, with few or no intervals, is a complete negation of the most elementary rules of hygiene.

As to the desired regular commercial production of educational films, I do not wish to see the pedagogues become over anxious about it. If it does not come to the establishment of motion picture firms for the production of educational films, no great harm will be done. It is something like the case of educational books written expressly for children, which rarely turn out to be real works of art. In Italy, apart from *Pinocchio* and *Cuore*, we have no examples. What we should do is to choose among existing works of art those, which — though not written expressly for children — are the best suited to their mental and moral development.

The world cinema production offers a large choice. For example, I remember the picture *Nagana*, which has plenty of instructive material (the tsè-tsè-fly and sleeping sickness, the methods used by doctors for

neutralizing the effect of a microbe). The educational element was also present (a Japanese doctor sacrifices himself for science ; another places duty before love). With all this matter the picture was a success in the cinematographic sense, that is, it was vivid, alive, and without any too obvious pedagogic intent to render it heavy.

I do not think it would be difficult to sketch out other films that should be instructive and educative without setting out to be so specially. This is the best type of educational film. Many animated cartoons are small masterpieces of humour. A little joyous serenity flavoured with the comic is always an excellent educational factor.

Just as there are papers for children which grown-up people do not disdain to read, so it should not be difficult today to create a cinema for children in every city. *Children's Cinema*, which should not be in a school, should be a place where every father and mother could take their children light-heartedly, certain to be all amused, without running any risk of harming the minds of their offspring with unsuitable pictures and scenes. Such shows should be short, gay, serene, and all passions and evil thoughts or actions should be inexorably excluded from them.

This should be the rule up to a certain age, until which no child should ever be allowed to enter a cinema for adults.

To sum up :

The cinema with all its drawbacks is essential to civilized life today. To suppress it or prohibit it, is unthinkable.

Nevertheless, the cinema has drawbacks and disadvantages, among which we may mention as one of the worst, the cerebral excitement and strain in the nervous system which it can cause.

We must therefore use extreme care when we show a child a motion picture. In the schools, little or no cinema. Preference should be given to other didactic means, which are often as modern as the cinema itself, and assist calm activity and the child's natural creative instinct much better.

Both with regard to the cinema *within* and the cinema *without* the school, children should be absolutely forbidden to visit ordinary adult shows. The civilized nations will not be long, I fancy in perceiving that Switzerland is right. As a consequence : we must organize special controlled projections suitable for children. We need a more careful watch over the duration of a projection, even for shows intended for adults.

If, in connection with simple and beneficial measures like these which I have suggested, the International Institute of Educational Cinematography thought well to sponsor a widespread movement of reciprocal understanding between the nations for a common legislation which should safeguard both child and adult, it would be worthily fulfilling what is perhaps the most important part of its educational task and would render itself well-deserving of the old and new generations.

* * *

(*Editor's Note*). Our contributor, Professor Mario BERNABEI, raises one of the most delicate problems connected with the cinema, not merely or even principally with the cinema in its didactic but in its general or essentially theatrical aspect. Namely, the use and abuse of the cinema.

It is an old theory that the normal use of a right cannot in itself constitute a contravention of the law ; and that, in fact, anyone whose actions are kept within the limits of right must be considered as morally honest. But when the exercise of any right interferes with the normal rights of another, either directly or indirectly, it may become an abuse, even though it keeps within the terms of the law.

This rule can be applied to the question we are considering. The cinema, as we have said repeatedly, may be equally the instrument of destruction or of life to the spirit. It can open wider and serener horizons before the mind, which respond more closely to spiritual needs than the

restricted horizons of heretofore, and is therefore a spiritual comfort and refuge. It can also open horizons which are opposed to everything that is normal in life, and thus lead astray those whose nerves and mind are not firm and well tempered. In other words, use and abuse.

This, in brief, and leaving technical definitions aside, is the substance of our contributor's thesis.

We must have a clear and definite idea of the good and evil that may be done by the cinema. It may be that no really definite ideas on this point are possible yet, because this formidable means of divulging and spreading thought is still in process of formation, and we cannot yet discover its ultimate ends, no matter how hard we try, and perhaps never shall. It is just on account of the life that the cinema can offer us, just because of all the multiple suggestions that can be expressed on the luminous space of the screen, in its radiant waves of sound, music and word, that psychologists, psychiatrists and all those whose chief business is concerned with the necessity of safeguarding childhood and youth in this field should use every endeavour to find the best and reject the least suitable types of film, and to decide how and in what direction the cinema, that seventh power of social life, may be utilized.

It is possible that the cinema may constitute a danger in the life of today in the eyes of those who make a study of social problems. Books also appeared to be a danger, not so very long ago, to say nothing of pictures, statues and engravings which displayed the beauty of strength in individuals and in races. Iconoclasm must be avoided, as well as undue insistence on what may constitute a source of danger.

But if the thesis of our contributor, who is a man of science, is correct enough in principle, it is still the duty of the Congress to call all its friends, near and far, to the discussion of a problem which is occupying everybody, and which is the closer to our minds since it is a subject that intimately concerns our children and young people, who will be the artificers of the life of tomorrow, and to whom we must offer simple, linear, easily understood things which are above all suited to minds and spirits in formation, without any deformations that may be injurious to them.

Dr. LUCIANO de FEO, *Editor and Responsible Manager*

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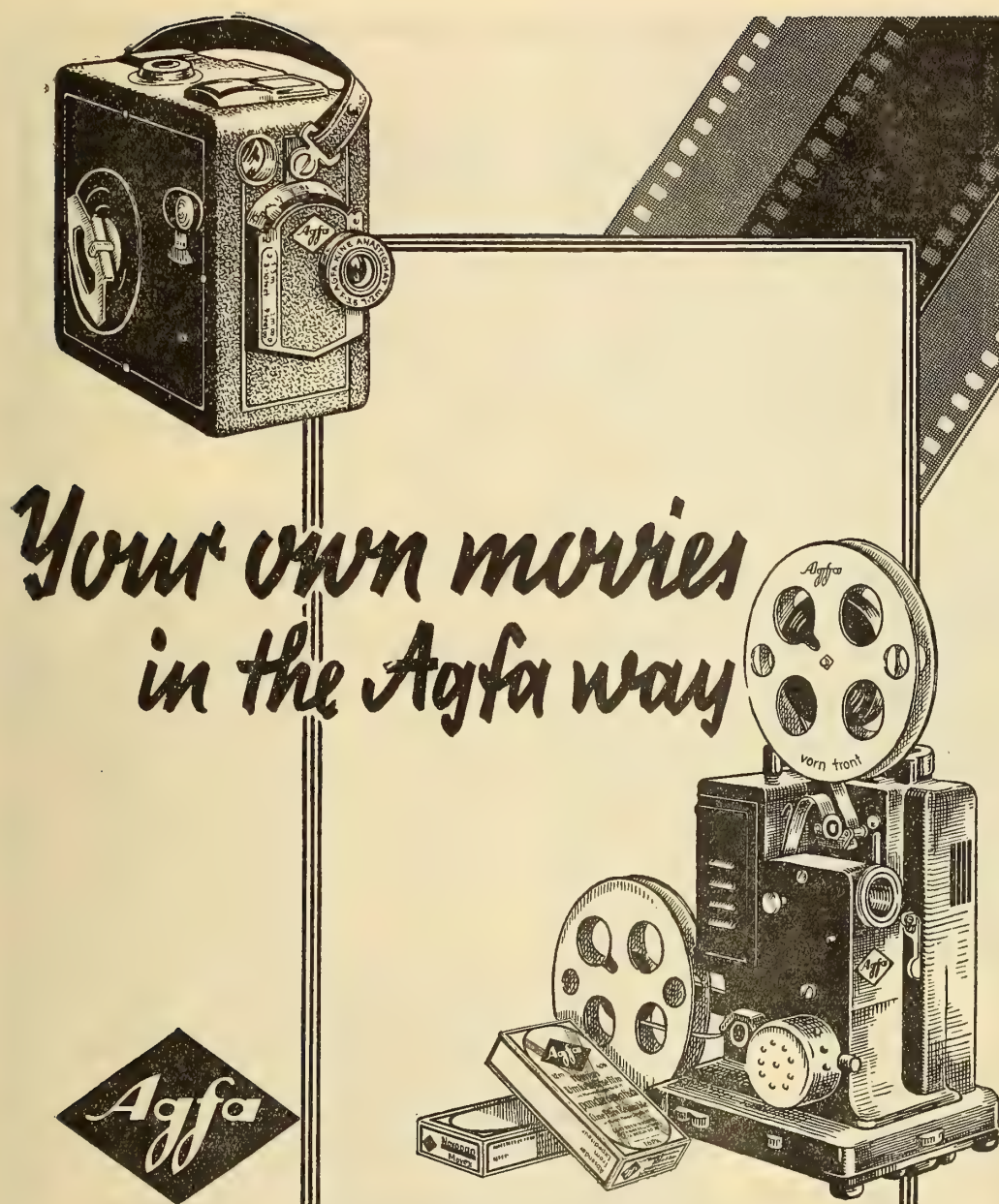
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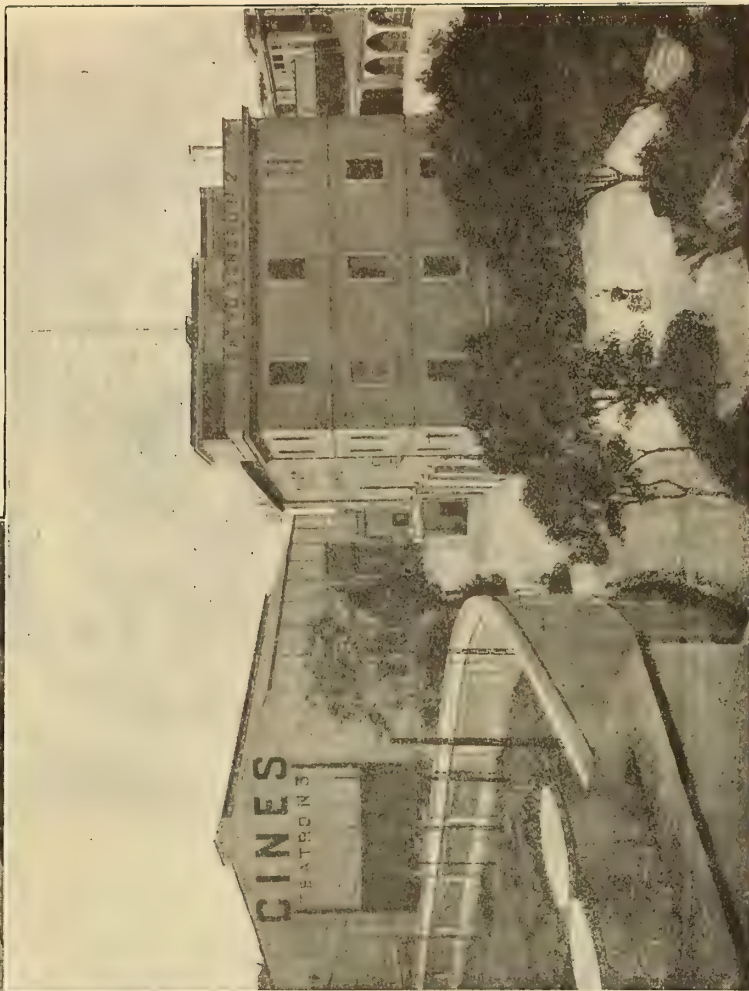
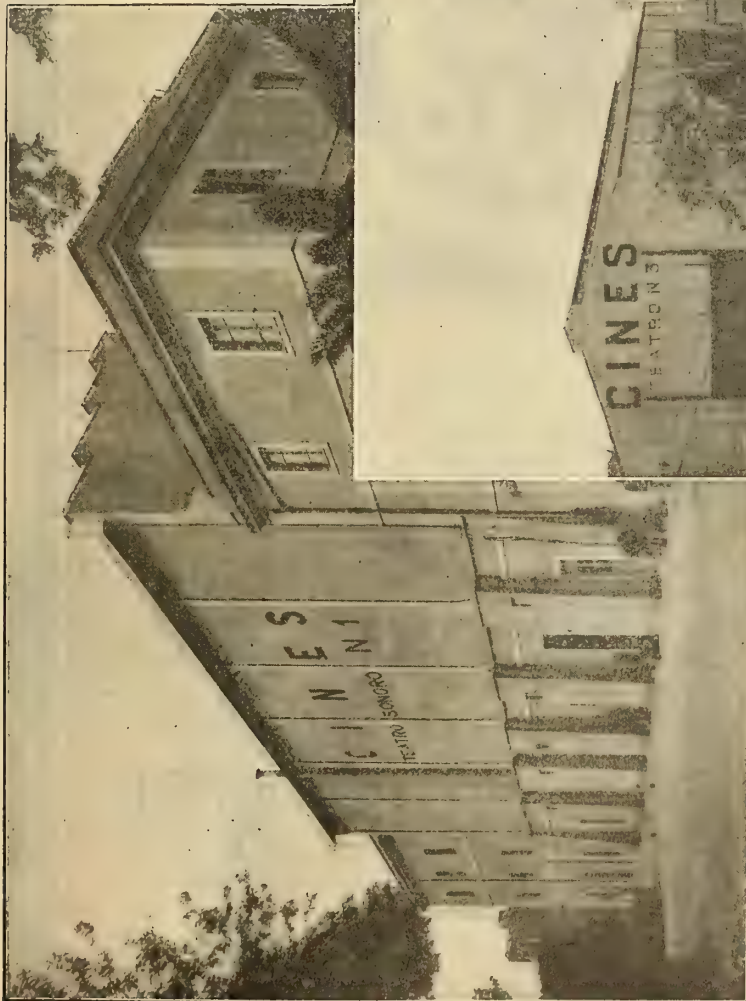
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THE CINEMA IN TEACHING

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CINEMA AND SURGERY

BY

Professor Roberto Alessandri,

OF THE UNIVERSITY OF ROME.

I think I may safely affirm that the only really important progress made in recent times in the technique of teaching has been effected by the cinema. I propose to leave aside a consideration of what can be done in other fields and to confine myself to the department of medicine and more particularly to the cinema teaching of clinical surgery and operative medicine, which I was the first to start in Italy. In a very interesting article published in *Scuole Fasciste* (Fascist Schools) Dr. Luciano de Feo recalls the now distant time when we began those series of surgical pictures, which were completed through the work of the LUCE Institute, and are still being continued. Even in those days, Dr. de Feo, who was a pioneer in this department, perceived the possible developments of the idea. The first attempts on these lines had the usual disadvantage of being made and shown on too small a scale.

The operating surgeon and his assistants were clearly visible, but not so the details of the operation being filmed. With the ordinary film then used, the blood made the whole field of the operation seem almost black.

Since then we have devoted much time and enthusiasm to improving the quality of the pictures, especially from the point of view of their didactic value. From the early pictures which, as I have said, recalled those of Doyen, where one saw chiefly doctors and nurses and next to nothing of the operation which, owing to the blood, looked like one uniform stain, we have come to make films where the field of vision is entirely occupied

by the operation itself with just glimpses of the surgeon's fingers. The enlargement that is now possible allows a perfectly clear view of the surgical technique followed, while the panchromatic film diminishes and almost eliminates the black aspect given by the blood, which prevented a sight of the tissues underneath. To be able really to speak of the didactic value of a film, this must be technically perfect and adapted to the purpose it is supposed to serve. I must insist on this point. The question cannot be considered one only of photographic technique, of careful focusing of the lens, of proper distribution of the means of illumination. The surgeon's part is supremely important in motion pictures of this kind, for we must remember that through one eye a thousand eyes are looking. Wherefore it is essential that the details of the operation be executed and projected in the most perfect and precise manner possible. Neither hands or instruments should obstruct the sight of the actual operation. The motions of the hands and the instruments should be shown as superficially as possible, and it is better if they are projected as slowly as possible.

It is only a film which can be considered perfect from the didactic point of view that will prove useful in teaching. I sometimes wonder if we have yet succeeded in making the right kind of surgical pictures, and I am inclined to think that our success has only been partial because an expert watching the picture must realize that some phases of the operation are very far from being clear.

Then we have those motion pictures which consist partly of photographs and partly of drawings. In my opinion, it would be perfectly possible to abandon the photographic part of these combinations.

I do not deny that the explanation of the movements of a needle in sewing up a wound is much more easily explained and rendered evident with an animated cartoon rather than with a photograph, but this only means that cinematographic technique has not risen to the height of its task, because there can be no doubt that the visual revelation of a good photograph and an animated cartoon are two very different things.

I do not mean these remarks as a criticism of any recently projected pictures about which I shall have to make some observations later on.

I think I am, up to now, the only professor of Clinical Surgery who has systematically introduced into the school the use of the cinema for teaching, and who has a three years experience of crowded halls like that of the Rome University, in which the teaching is obligatory for three years, with an average of 200 students per year. If I really wanted to fulfil my task as teacher, illustrating the technique of operations to more than 400 students at a time, with ordinary didactic means, I should not be able to do so. The facts have indeed borne this out. It is not possible today to imagine showing delicate surgical operations or even phases of them to more than 500 students, if only on account of the fact that the distance in itself would not allow a proper sight of what takes place or even an understanding of it. As often as not, in operations, it is only the surgeon's assistant who is able to see and follow thoroughly all the phases of the operation. The students cannot always do this. If, however, we place our motion picture camera close to the field of the operation and project the film so obtained, those 500 students will be able to see, follow and understand the intricacies of the operation just as well as the surgeon's assistant.

There is another important factor in the

case. During the actual operation, the surgeon can spare very little time to explain what he is doing, to point out the different organs of the body and the technique of the operation. Generally he cannot do more than give a few hasty words of explanation which must certainly be incomplete. In the case of the filmed operation, nothing of this sort takes place. On the contrary, the professor's own words can illustrate the operation exhaustively, leading the student up to perfect understanding and grasp of what has been done. This form of explanation can now be given contemporaneously with the picture of the operation, thanks to the sound film.

During a recent lecture tour in America, I took with me some films showing operations and personal methods of technique. I was able to add a sound comment in English to some of the pictures, so that the illustration was both visual and oral.

In my clinic, where I give six lessons a week, one of these is dedicated to the projection of a film which reproduces an operation on a man who has already undergone a previous operation that has been shown on the screen. I generally use fixed photographs to explain the nature of the operation, and show the part of the body concerned. Then I explain what the operation purposes to do in the particular case before us, again using stills or drawings. I then give the picture of the actual operation to minds which have already been prepared to understand it.

My experience during the last three years has convinced me that this method of teaching is very valuable, and that there is nothing at present to take its place.

* * *

Having thus shown and affirmed through experience the didactic importance of the surgical film, a large number of serious practical questions arise. Ought we to seek to create a repository of pictures by various authors, or is it more useful to have personal pictures at our disposal? When the students are not very numerous, the question can be

answered by accepting the first hypothesis, but not in other circumstances. Like all arts, surgery has always a personal touch to it, which is far from being unimportant, and we cannot think that teaching can be done by adapting one's ideas to those of another. Dr. de Feo has stated that there are over fifty motion pictures of operations for appendicitis, and there is nothing to be surprised at in this, because there are a great number of possibilities of variations of technique in this connection. For the purpose of teaching students, it is not advisable to vary the technique much. The picture should be made to follow the lines of how the operator ordinarily does the operation.

Otherwise, the picture will be more suitable for a student already acquainted with the technique, and be rather a finishing method than anything else. We have, as a matter of fact, such finishing schools already in use for men holding degrees, and they are generally frequented by surgeons anxious to learn the latest ideas in technique, especially foreign school technique.

Surgeons often visit other clinics and hospitals for this particular purpose, and also

to watch the latest developments. It is therefore logical that they should see operations on the screen, which system costs much less, is more convenient and more profitable, and will continue to be more so as the technique of the film improves.

It is therefore to be hoped that with this end in view exchanges of surgical motion pictures be encouraged among the various national and foreign schools, since films of this special character are naturally limited in number, and must belong to the major institutes.

The difficulties of spreading a didactic means, which is so important as this, depend less on technical than economic reasons.

If we teachers take the matter in hand, the solution of the problem ought not to be difficult, and it is hoped it will be solved in a short time. The sub-standard film is a step in the right direction. Under the auspices of the International Institute of Educational Cinematography, it ought not to be difficult to arrange a free or at least a semi-gratuitous exchange of films between the various best known scientific institutes, confining the matter for the time being to university schools and post-graduates courses.

THE MOTION PICTURE IN RESEARCH WORK AND THE SPREAD OF SCIENCE

BY

Professor Sabato Visco

OF THE UNIVERSITY OF ROME.

Necessity of Auxiliary Means in the Exact Study of Science.

THE scientist, whether he is examining phenomena by direct observation or trying to produce them by complicated and extremely delicate experiments, is always concerned about being exact.

Under the spur of this need, he continually refines and improves his methods of inquiry and defines their possibilities and the limits within which they can profitably be utilized, because he knows that it is only the truths which are discovered under these conditions which will form an enduring addition to our store of scientific knowledge, and be of service to humanity in its spiritual and material life.

In view of this need of exactitude, the application of mathematical calculations to scientific research becomes daily more imperious and widespread, and the modern scientist is fully conscious of the fact that real progress is made every time he is able to express a fact by a number, because it is only then that he believes himself to have succeeded in defining the phenomenon in the aspect most necessary for him, namely the quantitative aspect.

In view of this necessity for precision and exactitude, the possibilities of direct observation become constantly more limited, and the results continually less precise and definite, while, on the other hand, instrumental research becomes more widespread and of greater importance.

Our senses react to stimuli that are contained within limited boundaries, and therefore everything that is outside these boundaries escapes direct observation, and we can get some notion of them only if we make use of devices that will transform them into sensations which we can perceive.

It is well known, for instance, that the hearing is affected only by vibrations of a frequency of between 11,000 and 50,000 per second, and that anything below or above this frequency is not perceptible to our hearing. It is equally well known that all vibrations of the ether do not produce a sensation of luminosity, but merely those which vary in frequency from $4,3 \cdot 10^{14}$ and $7,5 \cdot 10^{14}$ per second.

Nor are our senses infallible; on the contrary, they have made man commit colossal errors, from some of which he has succeeded in liberating himself only after centuries of laborious research and close reasoning.

Having freed himself from the prejudice that the senses are infallible, and having recognized their limited possibilities, the scientist has had to look for auxiliary means to aid him in his search for truth, and has found them in instruments of precision which have revealed to him the existence of unknown fields in those very worlds where direct observation had been absolutely without fruit.

In the analytical effort to decompose into its simplest elements a phenomenon which is too complex to be understood easily and with certainty, the scientist, as Marey ob-

serves, has succeeded in creating more powerful senses for himself, making his sight more penetrating by using the telescope, to explore the immensity of space, and the microscope, to bring to light the world of the infinitely small. With balance and compass he has been able to determine with exactitude the weight and volume of bodies, which he could have done but very roughly by simple touch.

When a phenomenon is so minute or is produced so rapidly that we cannot perceive it, or when it develops at such a slow rate that it would be impossible for us to follow it through its various phases, when, that is to say, it occurs within those limits where the eye ceases to see and the ear to hear, or the sense of touch to feel, or also when our perceptions deceive us, these instruments reveal senses to us that are of portentous precision and become the indispensable intermediaries between mind and matter.

Nothing can be done in physics, chemistry or astronomy without the aid of research instruments, and physical and chemical agents are more completely demonstrated and are better defined by the characteristics which are revealed by instrumental analysis alone. The naturalist, when he realized the need of no longer having to restrict his activities to the observation of the forms of animal and plant organization and desired instead to investigate the conditions and manifestations of life, was likewise forced to have recourse to instrumental analysis and to proceed in the same way as the chemist and physicist.

It is only in this way that the human mind has been able to get outside the circle in which it had been enclosed for centuries, contemplating the superficies of objects and the less important manifestations of the phenomena of nature, and consuming in sterile dialectics that power which it uses today to carry out rigorous observations for the satisfaction of its need of causal explanation. If we leave aside the telescope, microscope and a few other apparatus, it may almost be said that the progress of instrumental re-

search began with the first years of the nineteenth century, increasing from then onwards in a marvellous way which detaches inquiry more and more from direct observation and eliminates every element of subjectivity from the description of phenomena.

The first instruments to appear and take firm hold and impose their use were those of graphic registration; but this method was found to be not altogether satisfactory for a large number of phenomena, and was gradually replaced by optical registration, which opened new paths that are still being followed with magnificent results.

The Cinematograph Applied to Scientific Research, and its Principal Functions.

We come now to the moment when the possibilities and advantages of photographic registration were beginning to be realized, and to the first stage of those experiments and studies which were later to culminate in that most perfect of instruments, the cinematographic camera.

In the beginning, scientists saw only a powerful aid for the analysis of certain phenomena in photographic registration, and their experiments were therefore restricted to the search for those subjects which would allow of the taking of a large number of photograms in a unit of time. The utility of the decomposition of the synthesis of movements into their constituent elements was not realized until later, when scientists had a clear notion, through the very results of the analysis, of the advantages that could be drawn from the recomposition of movements under the most suitable conditions for studying them.

Cinematography, applied to scientific research, fulfils two distinct functions. The first is of a documentary nature, and therefore enables us to see, study and repeat at will the demonstration of photographically registered facts. The second is intended to compensate the insufficiency of one of our senses, and thereby to render visible a vast complexity of phenomena which are inaccessible to direct observation.

The documentary function of the cinematograph is of self-evident utility, because it faithfully reproduces common events and phenomena or those which occur at long intervals, such as astronomical events; because it fixes the evolution of delicate experiments which necessitate the use of costly material or of difficult technique, or which cannot easily be repeated; and because it serves to facilitate the exchange between students of the knowledge of certain technical processes which even the minutest description fails to illustrate in all their clearness and completeness. There are pathological phenomena which occur but rarely, surgical operations, which necessitate a special technique, telluric movements, etc., all of which can be fixed and documented by the cinema to remain only as permanent records, but also as objects of detailed study since the view of the phenomenon or phenomena can not only be repeated as often as necessary, but can also be compared with similar phenomena verified in the past or in other parts of the world. Where, in fact, we used to make drawings, with all their inherent limitations and inevitable subjective quality, we are now gradually substituting cinematography, which gives us an objective and dynamic view of every fact and event.

The Study of Movement and Accelerated and Slow Motion Reproduction.

to the study of movement.

There are movements which take place so rapidly that the eye cannot perceive their different phases, so that they give the impression of being instantaneous, while there are others which develop so slowly that they appear stationary. In both of these cases, the cinema is found to be a marvellous instrument of research.

The beat of an insect's wing lasts only the fraction of a second, and the flight of a rifle bullet as it passes before our eyes is so swift that we do not see it. Such movements as

these can only be analysed by means of the motion picture, because it is only the cinema which can both register them and also reproduce them under the most suitable conditions for their study.

The growth of a plant, for instance, is such a slow phenomenon that it is extremely difficult to follow it throughout its whole cycle, which often lasts for years; and therefore we can follow its development in those periods when it is important to know it, only very imperfectly. The cinematograph, however, can register every one of these moments, and when we need it can give us a dynamic reproduction of the phenomenon in being and the effect produced on it by the various natural agents, sun, light, water etc.

Thus we may throw on the screen in the space of a few moments, all the details of certain phenomena which are spread over a period of years and which, without the aid of the cinematograph, we can know only in their different stages without being able to follow their development in its continuity.

The cinematograph, therefore, acts on time, modifying the development of certain phenomena, which cannot be fixed by direct observation in consequence of the speed or slowness with which it takes place (Comandon). The two most important processes of the scientific cinematograph are based on these possibilities namely, the accelerated and slow motion reproduction of phenomena.

Micro-cinematography, Dynamic Aerial Research and the Cinema.

In the last few years, through the work of certain biologists, we have succeeded in combining the cinematograph with the microscope and the ultra-microscope, thus opening new and unsuspected possibilities for scientific research. Micro-cinematography and ultra-micro-cinematography are already beginning to give a valuable contribution to the growth of our cognitions.

In the domain of biology, the cinema is the necessary complement of very many studies of living elements, because it enables us to analyse and synthetize and define the methods

of reaction to the various stimuli with the utmost exactitude.

Fundamental results have been obtained in the studies on "vitro" cultures which have been made in nearly all the biological laboratories of the world, and especially in the biological laboratory of the Rockefeller Foundation in New York. The researches made by Fauré, Fremiet, de Françoise Frank, Vlès and many others on the kinetics of development form a fresh treasury of facts wrested from science. Jolly and Comandon have registered the movements of the chromosomes in the cariocinesis of the haemata of tritons.

In other fields there have been, perhaps fewer applications, but the results have certainly been no less important and significant. Victor Henri has registered and analysed the Brownian movements of the minutest particles suspended in liquids. Dr. Siedentopp has made motion pictures of the photo-chemical transformation of white phosphorus into red phosphorus.

In ballistic studies, new light has been thrown on the speed of projectiles and the way they pass through certain resistant bodies, and new progress has been made in this field.

Aero-dynamic research has found a valuable aid in certain cinematographic machines which have been expressly manufactured and which enable us to take a simultaneous registration of three images, that is to say, the object, the chronometer at 1/500 of a second and the registrator of the angle of horizontal displacement. These apparatus enable us to measure the speed of air machines at the moment of starting and landing.

Scientific Institutes and Cinematograph Applications. In the field of the scientific organization of labour, the cinema continually gives us more numerous and more important contributions. Indeed, certain great manufacturing organizations have set up psycho-technical laboratories of their own where the cinematograph is frequently

made use of for special experiments and for the examination of men *seeking* work.

The principal scientific institutions of the world are continually improving and developing their cinematograph installations. In France, for instance, the cinematograph service of the army, the navy and aviation makes an extensive use of moving pictures for the improvement of machines and motors and for ballistic instruments. The National Research and Patent Office possesses a special organization which makes use of the film for purposes of investigation and documentation. In the Marey Institute, the cinematograph is one of the means of study most used, while the College of France has a complete and well equipped micro-cinematographic installation which is under the direction of Mde Françoise Frank, and another in the Cancer Institute of the Medical Faculty in Paris. The University of Lyons has also a modern micro-cinematographic laboratory. (*Comandon*).

In England, Germany and Japan, cinematograph organizations for scientific research are continually growing in number and importance. In the universities of Yale and Harvard, special pavilions have been built and fitted out with every modern camera and projection apparatus, while in Russia, at the instigation of Pawlew and other illustrious scientists, the application of cinema apparatus to scientific research is rapidly gaining ground.

The Use of the Cinema for Science Classes in Schools. There are two fields in which a knowledge of science needs to be spread, namely in schools and among the general public. In the former case, we use didactic films; in the latter, films belonging to what may be called cultural cinematography.

Forty years have passed since the first presentation of the cinema to the public, and thirty-six years since the youthful Dr. Dayen had a film made of one of his surgical operations. The problem of the didactic cinema is still with us, and is the subject of lively discussions, which seem likely to

continue. Some teachers still have doubts as to the utility of the film in teaching, while on the other hand others are of the opinion that by this means we shall at last be able to solve all the complicated didactic questions that have been so much discussed. There is complete disagreement on this question, for instance, in the philosophic world, and side by side with enthusiastic supporters of the cinema as an excellent means of teaching in philosophy, we find others who strongly deny this possibility, and even go so far as to maintain by a series of subtle arguments, that the adoption of the film is more harmful than useful, since it stultifies the teacher's didactic aptitude and distracts the pupil. Each of these points of view contains an exaggeration, but as a matter of fact, while it is not easy to understand what real aid the film can be in the teaching of philosophy, the assistance that it can give in the didactic explanation of several other branches of knowledge is obvious. Horace's dictum "*est inter Tanain quiddam socerumque Viseli...*" might be used in this case also.

The use of the film as a visual aid in teaching is rather limited in Italy, but it is very widely used abroad, with different aims and procedures, in schools of all degrees, so that we have in hand the results of a long and widespread experience which enables us to draw fairly sure conclusions on the importance and efficacy of the didactic film.

Wherever the didactic cinema has been used with circumspection, it has given excellent results and has shown itself to be one of the most suitable means for aiding the teacher in his work. This holds good for almost all subjects and schools, from the kindergarten, where it stirs the children's imagination, to the university, where it reproduces before the students the most important natural phenomena and the most complicated and difficult experiments.

The cinema brings movement and truth into the school; it brings life, broadens the narrow horizons of our minds, reveals the different aspects of the universe, and brings near to us the most distant beings and things.

It not only serves to fill our minds with useful knowledge, but it also raises them to the ideal.

It is a long time since demonstrations on the blackboard began to be a valuable aid to teachers; and the screen may be considered as an improvement and development of the blackboard. Facts live and palpitate on it, and take a tangible form that cannot be forgotten.

Moving pictures show events and phenomena in their successive phases, and are therefore immeasurably superior to fixed projections, wall pictures and so on, which show only one aspect of the phenomenon, one moment of its development.

Further, what is seen always leaves a deeper impression than what is narrated, and we may say with Horace, in his "Poetic Art" *Segnius irritant animos demissa per aurem, quam quae sunt oculis submissa fidelibus et quae Ipse sibi tradit spectator...*

The question becomes more serious, and opinions are in greater disagreement when we try to settle what form the didactic film should take and how far it should go, when, in other words, we discuss the relation that should exist between teacher and film.

The Didactic Film, Scholastic Grades and the Teacher's Function. The didactic cinema is above all illustrative, and should serve as a demonstration of what the teacher is explaining; or it should reproduce phenomena which the teacher is describing. Films must vary in content and form of execution according to the grade of the school for which they are intended. It is, I consider, a fundamental error to suppose that a teaching film can be suitable for schools of different grades, and this is one of the reasons, and perhaps not the least, why the didactic film has not yet arrived at that universal use which it ought to enjoy.

The film may to some extent be considered like a book in which the descriptive part is reduced to a minimum, and the illustrative part developed to the highest degree. Since

a book is of value only for the class for which it was prepared, so it is with the film.

For the boy who goes to school for the first time, taking with him the living sensation of the country, moving objects, and the life that flows in and from everything with the same restlessness as from his own muscles, the film should be based more on formative than on informative criteria, and should be the reproduction of simple natural scenery; so that the boy has the sensation that life continues around and before him in the school just as out in the world. A film based on such a conception may be used, except in certain special cases, in both town and country and in different sectors of the same nation. Further, in schools of this grade, where the didactic qualities of the teacher have not even the possibility of being fully utilized, it seems to me that there would be no harm in making use of films that reproduce entire lessons. Films of this kind stimulate the faculty of observation in the pupil, and frequently avoid the difficulties caused by the use of a too scientific language.

A child understands the meaning of what it sees reproduced on the film, and although it may not be able to give an exact description of it or make use of the proper expressions, it will at least remember the meaning and succession of the facts that have appeared before its eyes. Educators know that it is better for the pupil to make an effort to find the proper words to express an idea or a concept than for his mind to be filled with terms whose meaning he does not know.

On the basis of these considerations, some of the big cinematograph firms and cultural associations, and the numerous State and State subsidized organizations have prepared and continue to prepare daily many series of films, which may render considerable service in teaching if they are properly utilized. The problem becomes more difficult when the teaching reaches a higher grade and the didactic aptitude is of more importance, when in substance, the efficacy of the teaching is closely bound up with the personality of the teacher and the method of teaching he adopts,

Now, these personal qualities cannot be revealed in any way when the film reproduces an entire lesson; and the teaching that is based on rigid lines is empty, cold and lifeless. The lesson that is all ready, cut and dried spoils good teaching, and does not improve bad teaching.

A firm which produces didactic cinematograph material recently prepared several series of films which have certain qualities that are worth recording. In the first place, each film is executed in such a way as to constitute a complete lesson on a well defined question. The scenario is prepared with the same care and exactitude as when a model lesson or a school primer is being prepared, and each film is entrusted to a specialized director, after the elements composing it have been examined and approved by a rigorous and meticulous technical expert. Each film is also accompanied by a pamphlet of ten or twenty pages describing it scene by scene, indicating the points which should be particularly studied by the master before the projection is given, and suggesting comparisons and questions to be put to the pupils.

What object is served by these films, which I have seen highly praised in certain newspapers? Is it possible that their authors do not realize that they reduce the teacher's function to that of a cameraman, and that by making use of them the master will find himself forced to walk on chalked lines which he dare not leave without risk of disturbing the order and evolution of a lesson which is frequently quite differently arranged from the way he would like to give it, and which more often still is quite unsuited for his pupils and the lines on which he wishes his teaching to proceed. The contents and technique of a didactic film must be changed gradually with the rising grade of the school, and such films must be a supple *adjuvmentum* in the hands of the teacher which he can make use of as the needs of his explanations require.

Each film must reproduce detached facts, and phenomena of short duration. Im-

pressive surroundings and anything that merely serves to enrich the scenes must be eliminated, and the reading matter must be reduced to a minimum, like the titles of chapters in a book. These films must also be so arranged that they combine together and complete one another, like a series of lantern slides, according to the different ends the teacher proposes to attain.

The subjects must be well chosen, and the examples given must be typical. Further, it must be remembered that the cinematograph serves merely for the reproduction of the images of moveable objects, and it is useless to employ a film when a lantern slide would serve the purpose. There is not much sense, in fact, in giving moving views of scenes that are immoveable or of quiet roads, etc.

The film, therefore, must not take the place of experimental material or models or

the laboratory, since nothing can improve the didactic value of experiments made before the students, or the presentation of objects just as they are found in nature.

Even with these limitations, the cinema has become at the present day one of the most powerful means for the spread of scientific knowledge, and indeed, it should have an increasingly wider application in our schools.

Use should be made of it in the teaching of every science; and to the chemist and physicist, the mathematician and engineer, the biologist and the doctor it is indispensable.

The advantages that it offers in the teaching of medicine in general and of surgery in particular are absolutely incalculable; and therefore any financial sacrifice which may be required to endow our teaching institutions with such an efficacious didactic means will be fully justified.

SCIENTIFIC CINEMATOGRAPHY IN MEDICINE

By Dr. ERNST HERTZ, Professor at the University of Frankfurt.

In all special branches of medical science the student must always remember that the phenomena examined take place in a living organism, and that therefore the student has to do with natural phenomena, the rule governing which is evolution from one state to another. It never happens that the entire body, is in a state of absolute immobility right down to its smallest parts, as long as it is alive. There is always some active process going on, for life is this: never remaining still in one state. Life is not immobility, life is movement, and it moves in a very precise direction governed by regular laws. The manifestation of such vital movements is not only shown by the active man in his various actions and motions. The internal organs, the heart, lungs and stomach have movements of their own; blood runs through the veins, the lymph passes from cell to cell. Even the cells, the smallest elements in the human body which seem apparently immobile, manifest signs of motion as a proof of their very existence. Our skin does not cover us like some inanimate sheath, but its individual cells are continually changing shape, splitting up, dividing and moving about, as active as all the

other parts of the body, the movements of which can be observed with the naked eye.

It is not possible to describe all the wealth of the phenomena of movement which the body presents and all their variations in the diseased body. A knowledge of such movements and activity, however, allows us to understand very clearly why medicine takes advantage in its scientific laboratories of a discovery consisting of a mechanism known as "the writing of movement", in other words, the motion picture. The object of the first series of scientific motion pictures taken by *Muybridge* was to settle, if when a horse gallops or trots it is suspended in air for any portion of its movement. The physiologist *Marey* constructed a special apparatus to study the walk of man. He also invented the photographic rifle to analyse the flight of birds.

Many of the improvements in cinema apparatus come from the work of scientists who built themselves special machines to study motor phenomena which interested them to analyse. In the meantime, the motion picture conquered the world. The further it got from the scientist's laboratory, however, the further it departed from its true purpose, which

is to allow a study of movements and motion. What we see often enough on the screen today is too frequently not a composition of actions and movements but a succession of images following one another. The scientific film differs from the film with a subject especially on account of the fact that there is in the former no building up of images more or less detached from reality, but a reproduction of natural facts which are useful for teaching or analysis. The original use and meaning of the cinema cannot therefore be cancelled from the mind by what has happened since its introduction. The cinema is, in the scientist's hand, an instrument like the microscope to reveal minute tissues, or like the telescope to bring far off planets within our ken.

To begin with, naturally the motion picture is used for establishing a series of movements from which the spectator will gain the impression of certain facts with the same clarity as would be available in a first hand impression. In written explanations, the most minute and precise description can never equal the impression given from first hand acquaintance with the object being described. The film can give this identical first hand impression, and, moreover, can repeat it at will. In this way there came into circulation a large number of *demonstrative* instructional pictures illustrating most of the various branches of medicine which it is unnecessary to set forth here. It will suffice to mention a few essential points. In all practical branches of medicine, the motion picture demonstration is specially important when it comes to giving a visible exhibition of functional disturbances, operations and medical manipulations. It is often enough, to show the picture once to secure its being understood, but the addition of explanatory "stills" is useful for clarity's sake. Recently, A. W. FISCHER (*Deutsche Medizinische Wochenschrift*, 1932 N° 14) (WALZEL EICHELTER, D. M. W., 1932 N° 26) has insisted on the importance of the motion picture in teaching surgery. It is possible "with simple apparatus" to photograph typical manifestations of the exterior of the human body which are important from both the therapeutical and diagnostic points of view. The cinematograph action must be composed in such a way as "to interest and strike the attention immediately". In addition, it is necessary to reproduce particular observations and rare operations which are special cases for teaching students. The cinema technique of filming operations has not yet been sufficiently developed, although the manufacturers of motion picture cameras have gone so far as to construct apparatus which prevents the cameraman from interfering in any way with the opera-

tive act. Machines of this kind are generally arranged above the field of the operation and set in motion with motors regulated from a distance. In this way it is possible to have a clear and complete picture of the operation without disturbing its progress. The use of cameras using two colour film (Busch machines) helps the clearness of the pictures, because the blood which flows in an operation produces a completely black effect in an ordinary monochrome film. The film of an operation is not exclusively a didactic picture. It affords the surgeon the opportunity of running it off for his own benefit and watching his work in comparison with that of other surgeons. It is often the case that a student of facts and phenomena can get a better idea of them from a motion picture than from actually seeing them happen in real life. It is almost impossible to describe the movements of single parts of the body of an agitated person who is making uncontrolled gestures and movements without the attention being distracted by movements of other parts of the body or by vocal expression. The mechanical apparatus is much surer than the students' wavering attention. The machine registers what it sees, and is indifferent to anything else. If we use more than one camera we can obtain close up pictures of the details of movements as well as an image of the whole phenomenon.

Cameras for motion pictures must have special characteristics when we wish to use them in connection with X rays for registering internal phenomena of the human body. X rays are not refracted in photographic lenses, and can only be used by means of a screen, which is an indirect process.

With the JANKER GOTTHEIMER e JACOBSON system, it is possible to take motion pictures with X rays at a speed of 16 photograms a second, and it is even possible to make pictures that can be used with the slow motion projector or with accelerated running off. Especially interesting analyses have been made possible through a combination of X ray cinematography and the sound track. (See LEO JACOBSSON : *Sound Film and X rays on the Human Heart*. D. M. W. 1933 N° 9).

Serums, bacteriology, histology and anatomy require micro-cinematographic cameras, that is cameras to which a microscope is attached. In this way, through subsequent enlargement, we can throw on the screen in perfect visibility for a large public phenomena only ordinarily visible under the microscope.

The kind of motion picture which we have spoken of so far only includes reproductions of facts which we can see with our naked eye or by

using glasses. A cinema apparatus made in a special way allows us to render visible motive acts which would otherwise be unobservable. We cannot in the ordinary way perceive the growth of a flower or the opening of the folds of a bud. It is only possible by making references to intervals of time to establish the fact of the movement, that is its growth and development. By means of the accelerated running of the picture, it is possible to quicken these slow movements of flowers and plants without destroying their proper individual rhythm. A whole new world has been revealed by this discovery. Phenomena such as the growth or division of cells which up till recently it was only possible to study through single and casual images can be observed today as one complete event, the intermediate phases of which no longer require intellectual representation in order to be understood. The technical characteristics and the working of the accelerating process with other connected questions are treated in detail in a work by KOLLE, LAUBENHEIMER, VOLMAR. (*Internationale Lehrfilmschau*, October 1932).

It is not true that films of this kind are only useful for demonstration purposes. Specialized cinema apparatus have become the starting-point for a whole series of *biological researches*, and have led to the study of a variety of problems, the importance of which is not yet sufficiently recognized. The use of the motion picture to obtain a better understanding of motive processes in the field of physiology and pathology of movements has proved an indispensable aid. The motion picture fixes the wavering process of movement, and the image thus fixed allows us to make an analytic study of its development.

The comparison between diverse images observed in different places and at various times allows us to make valuable conclusions. This is the reason why the film was chosen as the means to classify the states of agitation in mental disorders which in general are very difficult to distinguish from one another. An accurate analysis of complicated motor phenomena has been made during the last few years in the clinic for mental and nervous diseases, of Frankfurt (Director: Professor KLESIT). In proceeding with the classification of various images, it was possible to observe recurrent positions.

The observations and deductions which it has been possible to make in the course of a number of years have rendered it practicable to perceive with a certain probability of correctness the hyper-cinetic psychoses capable of cure, (Motor psychoses and disturbances: KLEIST), also cathatonies of a malignant nature and the exterior aspect of certain states

of agitation. Numerous other problems have been treated in this fashion; such as cases of paralysis, encephalitis and other morbid conditions having their origin in the brain. Similar or identical motor phenomena with those perceptible in endogenous psychosis leading to a study of cerebral psychopathy provide subjects for similar studies.

In cases of mental diseases with symptoms of restlessness, it is generally sufficient to project a film of the case once or twice to recognize the characteristic motor symptoms, as well as for distinguishing expressive or reactive movements or paracinesis as well as for making observations of the irregular return of certain phenomena. When, however, we are not dealing with certain known motor characteristics or with determined developments of actions but rather with single irregular movements of similar aspect, we can only observe and register their characteristics and particularities by means of *more minute cinematographic analysis*. In order to differentiate between the various forms of restlessness and mental disturbance, it was necessary first of all to establish the type of the movement, its rhythm, the alternating phases, the course of the individual movements and the manner of their succession. In this the simple projection of the film is not enough. It is necessary to study in a slow motion projection the individual successions, examining them often, image by image, and comparing movements, attitudes and positions. In the case of very rapid motion, as in tremours or the tic, it has only proved possible to attempt the analysis after having slowed down the movements with the aid of the slow motion projector, because in an ordinary succession of images, the effect would be far from clear. By counting the number of the photograms, it has also been possible to establish the time and to determine the rhythm of the action as in tremours of the body. In any case, such precise form of research is required because it is impossible to classify determined groups and include them in definite phenomena in any other way. (See HERTZ; *Amiostatic Phenomena of Agitation*, Leipzig, 1932 Ambrosius Barke).

When a complex of movements is formed from single and individual movements with small starts and tremours and when, moreover, these brief movements take place quickly, the human eye cannot appreciate the particulars without some assistance. The motor reflex actions due to fright (STRAUSS) the movements of the pupils, (LÖWENSTEIN) and the movements of nystagmus (miners' eye disease) can only be analysed through a careful study of individual photographs. We cannot even observe and register the subtle particular differences of the typica

manner of movement of individuals which give them their individuality and characteristics by mere naked eye observation. The study of individual motor action of persons would require the use of the motion picture.

I became convinced of this by studying the movements of an orchestra conductor.

The film should also have considerable utility if used for expert proof of personality by fixing definitely the fleeting but characteristic movements, attitudes and gestures of an individual, so as to present them in the form of irrefutable evidence.

The individual scientist who uses scientific films for his own analyses ought to keep it clearly in mind that the object of his precious material does not end with him. It is inconceivable that motion pictures made in clinics and laboratories by scientists should be kept to a restricted circle and afterwards be forgotten in film archives. For purely practical reasons, and also to assist the progress of science, such material ought to be distributed in the form of scientific didactic motion pictures.

Only a *film manual*, put together with the collaboration of all those who use the film for scientific purposes, is capable of giving a proper knowledge and understanding of the various motor processes and disturbances of the human body. Work has already begun in Germany on a list of all extant medical motion pictures. Some small attempt only has so far been made to place such material at the disposal of those anxious to make a didactic use of it. These attempts ought to be supported by a central body. An *International Central Institute* would be able to avoid useless repetitions of scientific films by a process of concentration. A list of existing pictures would assist the scientist in his choice.

The idea that it might be possible to know from one week to another the state of the production and the available quantity of scientific films ought to give a strong help to any initiative for classification of didactic pictures. Finally, a central body could easily overcome the difficulty of financing the enterprise, in this way freeing labour and energy for the benefit of science.

X - RAY CINEMATOGRAPHY

BY

Prof. Aristide Busi

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The Study of the Human Body.

ANYONE entering a dissecting room for the first time and seeing a human body dismembered piece by piece, with the organs and viscera laid bare and isolated, cannot help feeling, in addition to a sense of pity and wonder, a desire to understand how that heart which lies red and flaccid on the marble was pulsating only a few days before, and how those lungs that lie shrivelled at the side were swelling in the fulness of life.

But who could ever divine, looking at the bloodless, rigid face of an unknown man, the complex, conscious play of those muscles that formerly expressed the slightest emotion of his mind? When has death ever succeeded in giving us the whole truth on life?

Anyone, passing from the anatomical examination to an Institute of Physiology, that he may learn, for instance, with what movements of preparation and propulsion food, passing from the mouth to the pharynx, is directed into the oesophagus, what checks and releases occur to it on its way to the stomach, how the latter becomes animated and seizes hold of it and works on it, or that he may learn how a heart beats, will find that there are two different ways of studying the same thing.

Systems of Other Times.

One of these is very complicated, and consists of certain writings traced on smoked paper by needles which oscillate in response to the movements transmitted to them, by means of special devices, from one or other

of the internal organs of the body. But these writings are in a language that is clear only to the initiated.

The other is atrocious. We see the living heart at last, but through the split-open breast of an animal, which thus pays for the terrible privilege of having a viscera which is identical with ours, which functions like ours and beats like ours for love or pain. I still remember, in the second year of my medical studies at the university, my first lesson on the physiology of the heart. I can see the little dog tied down, with his breast cut open, and at the bottom of the bleeding gap something that was moving rapidly. I see the crowd of my companions standing round in silent wonder. I see the professor, who shows us the movements and explains them, and at the end suddenly cuts the heart from its peduncle and lifts it up, still palpitating, while the imploring eyes of the little dog slowly film over.

X-Rays.

The Divine Being, to whom the laments of so much suffering flesh had risen for years and years from the living things that were sacrificed to our scientific needs, real or presumed, decided at last, in 1896, that the time had come to satisfy our desire to see within the living body, without death or pain to any living being, so He sent us the miraculous gift of the X-rays, through a professor of a little German university, C. W. Röntgen.

The walls of the living body fell, so to speak, before these rays, and we saw, in the

still intact animal, the bones, the brain pan, the organs of the thorax ; and later on, by the aid of new discoveries, we were able to see the marking of the different cavities of the alimentary canal, the urinary apparatus, the brain itself, the gall bladder, the circulation, etc. We can fix these markings on the photographic plate by means of X-ray radiography, or study the movements of some organ through its shadow thrown by the rays on a fluorescent screen (radioscopy).

Even those who, like me, were among the first to interest themselves in the new researches and to dedicate themselves to medical radiology, that admirable and youthful science which is so overwhelming in its progress, so abundant, indeed, so inexhaustible in its discoveries and disclosures, and to which we undoubtedly owe at least the half of our exact diagnoses today, are still full of wonder when they see a heart beating before their eyes in a body that not only does not suffer, but feels not the least discomfort from this process. Fear of the darkness and the strange, mysterious method may cause the heart to beat faster, but the persuasive words of the physician soon calm it ; meanwhile, as the lungs swell out, they grow more transparent, and the diaphragm falls and rises with the inspiration and expiration of air.

The Difficulties of Radioscopy. But if radioscopy enables us to work out an immense programme of research on the seat, form and movements of any organ, there are still two results which radioscopy does not give :

1) Its moving images cannot be seen by many persons at a time. In fact, the light of the fluorescent screen, that is to say, of the special section that is made luminous when the X-rays beat upon it, is weak ; it is of twilight intensity, and therefore necessitates a long period of waiting in the dark and close vicinity to the screen itself, if it is to be perceived. On account of this compulsory limitation, we cannot make use of radioscopy for demonstrations before a number of persons.

2) It does not enable us to analyse exactly all the single movements of the body's organs, some of which are very delicate and not infrequently form part of a very complicated whole, movements that are continually passing one into another, sometimes with great rapidity. Yet it would be of the greatest use if we could fix indelibly one by one, the single phases in their natural succession, and even reach the point of re-composing them in their complete animated cycle, so that we could study them at length in the quiet of our institutes, away from the serious danger connected with the X-rays, or show them in public for the delectation, joy and education of all.

X-Ray Cinematography.

The necessity of discovering some special technique that would permit of a perfect *cinematography with X-rays* which would be identical in its results with that obtained by ordinary light, was realized even in the very beginning of medical radiology. It was also realized that it was necessary to reach the point of obtaining graphic notations of each movement on a photographic plate by means of X-rays (Röntgenchimography).

I need not deal with this latter phase, which, started in 1912 by Gött and Rosenthal with good results, has been applied practically in Italy by Professor Cignolini of the University of Genoa, to a point that may be said to reach perfection, especially for the complicated pulsations of the heart.

I will confine my remarks, rather, to X-Ray Cinematography, which is the subject of my report.

It has a very short history, and two very different methods were followed in developing it.

1) Through cinematography, making use of radiography by means of the X-rays.

2) Through cinematography, photographing the image revealed by the X-rays on the fluorescent screen.

And from these two procedures a third and much more modest method came to birth, namely :

3) Slow seriography, which also deserves at least brief mention.

X-Ray Cinematography with Direct Radiography.

The chief difficulty encountered was always due to the absolute necessity of taking at least sixteen pictures per second of the organ in movement, so that when they were projected in the same order and in rapid series on the screen, they would give the retina the sensation of a single image in the course of its natural movement. Very short poses had to be adopted, therefore, so short that they were almost instantaneous, that is to say, they must be from a 32nd to a 100th part of a second. This necessitated an excessively rapid change of the radiographic plates and the diminishing in size of the radiograms thus obtained, in order that they might be projected. Lastly, the number of images obtained in this way had to be sufficient to reproduce every phase of the movement under examination.

Photography by means of X-rays began with the direct utilization of ordinary plates, that is to say, glass prepared with a layer of gelatine. But, unfortunately, these plates had to be very large, at least 18 by 24 cm., especially for the heart and gastro-duodenal region, which are the viscera most studied. It must be obvious to anyone that the necessity of changing glass plates of this size at the rate of 16 per second makes the task of taking good cinematographic pictures of this kind excessively difficult.

It was quite impossible, in the early days of radiology, to take really correct pictures of this kind. I will limit my review to the most important stages.

The first attempts go back to 1897-98, when Roux and Bathazard studied the stomach movements of small animals by means of the radiography of a moving film, which they repeated twelve times, with poses of one second at regular intervals. Thus began the first steps in Röntgencinematography. The experiments were resumed in 1905 by Levy-Dorn and in 1907 by A. Köhler, with results which, when presented to the various

Congresses, aroused the admiration and hopes of all. But these authors and their followers had necessarily had recourse to a trick, which, for that matter, they frankly confessed: they had taken a large number of radiograms, with a maximum pose of one per second, and thus fixed, of course by chance, the most varied phases of the movement, and had then combined the images one after another in a series that gave the impression of the real movement, when the reduced radiograms were projected on the screen. Levy-Dorn, for instance, radiographed 20-22 phases of movement in 20 seconds, and each phase was repeated twice, one after another.

In 1908, Eijkmann succeeded in obtaining X-ray cinematographs of the act of deglutition. The slight thickness of the organs of the throat had enabled him to take instantaneous radiographic poses, that is, poses corresponding to an opening of the primary current of Ruhmkorff's coil. Unfortunately, his process, which was easy to carry out with suitable electric controls and very small plates, laid the operator open to all the dangers connected with the excessive use of X-rays, causing the hair to fall and provoking erythema, and in addition it could not be used for large organs like the stomach and heart, which would have necessitated enormous intensities of X-rays for the taking of radiograms of such short duration, and we had not these intensities in these days.

But great improvements soon began to be made in radiological apparatus, which, with the elimination of the closing currents, gave us a very high intensity of X-rays, namely, 100 and more mA, while our technique, which was continually making progress, was enriched by the so-called reinforcement screen, the first really excellent examples of which were constructed by Gehler of Leipzig. The *reinforcement screen* is formed of a plate which is very easily penetrated by the X-rays; it is covered on one side by a salt that transforms the rays into ordinary light. If this covered side is closely attached to the sensitive surface of the photographic plate, we can make use of this system to take much

shorter poses than those that would be necessary otherwise, using the same intensity of Röntgen rays, with excellent results. It was thus possible to reduce considerably the time required to make a good radiogram, even with a not excessive intensity, without fear of ruining irreparably the gas ampules used at that time, even though the operation should be continued for some seconds.

Already in 1909 Grödel, making use of radiographic films placed between two reinforcement screens instead of photographic glass plates, was able to obtain, at 60-70 cm. radiograms of the thorax and abdomen of from one-fifth to one-twentieth of a second. By means of this improvement and of a special mechanism for changing the plates, Grödel made some experiments in X-ray Cinematography, and projected a film of the movements of the heart, which he obtained by a series of 6 radiograms per second, before the Congress of Internal Medicine which was held in that year at Berlin. I must mention here that Grödel's clever idea of making use of the film instead of radiographic plates, and two reinforcement screens instead of one was later improved upon by the late lamented engineer Luboshez, who invented the double emulsion film, to be used between two reinforcement screens, a sensible system which is still in use today.

Returning to X-Ray Cinematography, even Grödel's process was only an experiment, and although it came a step nearer to perfection, it was still very far from that goal and was not in any case a practical method. The number of radiograms obtained in a second was still much too small for reproducing in projections the actual movement exactly as it takes place, however reduced the radiograms might be, and even on condition of repeating the same series several times.

It seems, however, that Grödel has recently succeeded, according to what we read, in taking 16 direct radiographs of the heart in one second, by means of a special very rapid transport of the film (a ribbon reel moving between two reinforcement screens).

In 1909, Kastle and Rosenthal made

known a method they had worked out, which allowed of the direct taking of many instantaneous radiograms of an organ in movement, one after another, for the entire duration of its kinetic activity. They called this the *bioröntgenography*, instead of Röntgen Cinematography, since, like the preceding methods it did not reach the intent of reproducing the actual movement in the projection, while it was, on the other hand, sufficient to give a fairly exact sensation of the complex life animating the moving organ during radiography.

By means of this system, the authors could give an idea, not only of the principal phases of the movements of an articulation, which can be made to move slowly, and of the gastro-duodenal system, where the peristaltic waves are sufficiently slow, employing from 10 to 12 seconds in their course from the cardia to the pylorus, but also of the heart and respiration. Their *bioröntgenograph* was constructed for radiographic plates, 18 by 24 cm. in size, and for a series of 13 radiograms and the total duration of 20-22 seconds (on 30-60 mA and 220 volts). The 13 radiographic frames containing one film each were collected in a vertical pack in a special support, against one side of which the patient was placed during the radiography. The first film having been sensitized, the frame that enclosed it was automatically dropped, by a special mechanism, into a collecting receptacle, and its place was automatically taken by a second film, and so on.

The right moment for lighting the Röntgen ampules and changing the film was regulated by electrical devices. It is to this instrument of Kaestle and Rosenthal's that we owe particularly the more complete analysis of gastric peristalsis; and it is the instrument which enables us, by means of outline drawings traced over the images of single radiograms, to superpose the single pictures obtained, and then to make a synthetic total of all the movements of the stomach. But, while it attained the object aimed at for purposes of study, it marked scarcely any real progress in the field of

radiological cinematography. Therefore it was very little used, especially in view of the fact that almost the same results were obtained by means of a much simpler apparatus, which cost very little and could be used by all, namely, the *seriograph* devised by me.

Summing up, it was not possible, with direct X-ray Cinematography, to make use of the continuous photographic method, and in the various experiments made it was found necessary to adopt the method of intermittent photography. The continuous direct cinematography of an organ in movement necessitates extremely rapid turning of a film with poses of about the thousandth part of a second, that is to say, with a fabulous intensity of X-ray, which no radiological apparatus can emit, especially for the duration of several seconds, apart from the danger which the patient would inevitably run.

Too many difficulties were encountered in the attempts made to take the necessary 16 radiograms by means of non-continuous or intermittent photography. It is true that one of the obstacles was removed by the use of the double emulsion film placed between two reinforcement screens, the sensitiveness thus reached being very high; but it was not completely removed, because the reinforcement screen, when exposed to the X-rays, still retains for some little time a residual light which limits its use even for very short poses which succeed one another at short intervals. This difficulty of direct X-ray Cinematography was recently overcome by R. Jenker of Bonn, who described an apparatus of his (in 1931) in which a strip of film, turning rapidly, passes between two strips of reinforcement screen, which also run with same speed and the same stops as the film, but in the opposite direction. So that the new film is continually being placed between fresh and rested sections of the reinforcement screen, sections, that is to say, in which the fluorescent light is already extinguished.

Janker used his method with excellent results, but, so far as I understand, only on animals. The danger of lesions to man

is still too serious, which means that even his apparatus cannot be applied to the X Ray Cinematographic study of human physiology and pathology.

Slow Seriography. If the various experiments in cinematography of early times are considered in the light of facts, we see at once that even in the most nearly perfect of them the number of radiograms per second obtained was always too small for a correct projection. They reproduced, in fact, only the principal phases of a movement. This being the stage reached, I asked myself, in 1912, whether, by still further reducing the number of radiograms, that is to say, reducing them to 4 or to 8 at the most, in one or two seconds, we could not collect in series and usefully the movement of certain organs the activity of which is not too great or is slow, the stomach being of the first order and the articulations of the second; and thus, with a more limited programme and fewer pretensions, and without the need of costly and complicated apparatus, get a good idea of such movements under both physiological and pathological conditions.

I at once put into practice this realistic and eminently practical conception of seriography by means of a very simple slide, with which I experimented for a year in the Radiology Department of the Ospedale Maggiore of Bologna, in the most varied researches and with great success: for instance, on the oesophagus, stomach, duodenum, bladder, flexion and extension of the knee, etc. At the suggestion of the late lamented Professor A. Codivilla, Director of the Rizzoli Orthopaedic Institute, I presented the results of my experiments to the meeting of the Medical Society of Bologna which was held on January 2, 1913.

The method was as follows: in the radioscopic apparatus for standing patients (orthoscopy) the fluorescent screen was replaced by a lead plate one or two m/m in thickness, which had a rectangular opening in the middle 12 by 15 cm. The plate was fixed, at the desired height, on the wooden side of the orthoscope. The fluorescent screen

could be used to close the opening when desired, thus giving a preliminary radioscopy to discover whether the visceral part to be observed was entirely included within this opening, or as much of it as was needed. After this verification, the fluorescent screen was taken away, and we then proceeded to make the radiograph, applying the quarter of a radiographic frame of the dimension of 24 by 30 cm. (the photographic plate at that time was a double emulsion film placed between two reinforcement screens) on the opening of the leaden plate for each exposure. The duration of the pose was as short as possible.

This radiographic system could be used not only with standing patients but also with those lying on a bed, or with an ampule functioning from above or from below.

I illustrated this method at the 1st Congress of Italian Medical Radiology at Milan in 1913; and, because it was so practical, slow seriography was introduced into nearly every Institute of Medical Radiology not only in Italy but also abroad, although its source was never stated. The idea was so simple and grew so naturally out of previous experiments in X-ray Cinematography, that it is no wonder if other have worked it out, quite apart from any suggestion of mine; nor could there be any question of plagiarism. I was very pleased, however, to see that the work, given as the first on seriography in the most serious and complete Radiographic Bibliography that exists, published by Professor H. Göht of Berlin, which gives all publications on our branch of medicine, was mine.

Cinematograph Films In 1908, and at the same Congress where Grödel had presented his Röntgencinematographs of the heart, Biesalski and A. Köh-

Obtained by Photographing the Images Revealed by the X-Ray on Fluorescent Screen. ler illustrated a process, worked out by Köhler the previous year, consisting in the cinematographic photography of moving images as they appear on the fluorescent screen. This brilliant idea occurred again, later on,

namely, in 1911, to two French radiologists, Lomon and Comandon. Their technique, which was used for the first time in the Physics Laboratory of Professor Broca of the Faculty of Medicine of Paris, also consists in cinematographic photography, with a special lens, of the images on the fluorescent screen. I have summarised it from their works published between 1911 and 1924.

The practical realization of indirect X-ray Cinematography depended on various factors.

(1) The *fluorescent screen*, which ought to furnish enough light to impress the photographic emulsion in a period of time not exceeding $1/32$ of a second.

(2) The *photographic film*, which ought to possess a very high degree of sensitiveness in respect to the special light emitted by the fluorescent screen, in order that the image might be fixed almost instantaneously.

(3) *Intensity of X-rays*, which, in order to stimulate the necessary amount of light on the fluorescent screen in relation to the sensitiveness of the photographic emulsion, ought to be very strong, but not so strong as to compromise the durability of the Röntgen ampule which is always a very costly instrument, by working continuously or intermittently for several seconds, or so strong as to cause injury to the patient, who, exposed to the excessive action of this singular light, would undoubtedly run the risk of a very deep and serious and painful necrosis in the part irradiated, which might last for years and even prove incurable. This can now be avoided by making certain preliminary tests, to fix the innocuous intensity of the X-rays.

(4) *Lens of the cinematographic machine*, which ought to collect the maximum light of the fluorescent screen, which is not in itself very intense.

(5) *Protection of the film* against the sensitizing action of the X-rays.

The other questions to be settled in connection with indirect cinematography were the same as those connected with direct cinematography, but those associated with the changing of the photographs were extraordinarily facilitated by using a film reel which was

so narrow that it could be turned very rapidly.

Lomon and Comandon took all these five points into account and tried for a solution of them, but they succeeded only imperfectly for the human body, except for those parts of it that are of slight thickness.

If their method has the inconvenience of utilizing only a small part of the luminous energy of the fluorescent screen, as the doctors themselves confess, it still has the very great advantage of enabling us to take with ease a large number of images (18 or even more) per second. This disposed of the difficulty encountered and not overcome in previous experiments with direct radiography, of reaching the number of 16 radiograms necessary for projecting the phenomenon under examination at its actual speed. In fact, in experiments with direct photography, each film of a minimum size of 18×24 would have had to be presented before the region under examination, remain fixed in that position during the radiography and move away after the pose; and no more than one sixteenth of a second could be allowed for all these complex evolutions. That is to say, an impossibly short time with isolated changes, in view of the inertia of the use of a film turning on wide reels would prove complicated and costly.

Lomon and Comandon were able to obtain instantaneous photographs on ultra-sensitive films, illuminating the fluorescent screen by means of very powerful beams of X-rays (corresponding to 300 mA of a Coolidge therapy ampule on 80 K. V.) and using specially made fluorescent screens and employing a lens with a really exceptional opening, namely, $F : 1.55$ (designed by Florlian C. E., then engineer to the firm of Lacour-Berthiot). The cinematograph apparatus of the Pathé firm was so modified as to increase as much as possible the time of the pose in relation to the time of obturation. The fluorescent screen and the cinematograph apparatus were made solid and firmly fixed on a rigid frame, which in its turn was fixed to the ground. The focussing was very

difficult on account of the slight depth of the field of the lens, and in any case was bound to be absolutely exact, was fixed once for all. Among the various fluorescent screens examined, the authors, after many trials, chose those of calcium tungstate, like those used for reinforced screens, but coarse-grained. Finally, the lens, which is the essential part of the apparatus, was calculated for photographing a flat surface emitting ultra-violet rays, and was therefore composed of substances which are transparent to them, namely, quartz, uviol glass and glycerine. The time which is sufficient to obtain at least two revolutions of the heart is about three seconds, and therefore this period was not surpassed for cinematographing them. A large number of positive copies were printed from the negative obtained, and these copies were joined together so as to connect also the movements of the organ photographed, thus forming a fairly long strip for projection.

Lomon and Comandon's method of cinematography has not been widely used, on account of the danger either to the apparatus or to the patient (cutaneous burns by X-rays) by the use of so strong an intensity.

Various other authors followed the same route: Chamberlain and Cole in America, Melville and Russell J. Reynolds in England, Gottheimer and Jacobson in Germany, but they all encountered the same difficulties as Lomon and Comandon, and therefore the various apparatuses have not come into practical use: at the most they could be used in practice, like that of Russell J. Reynolds, only for small animals, which, however, always constitute a valuable means of study.

Dr. B. E. Luboshez who, with great enthusiasm and at considerable financial sacrifice, dedicated himself to these studies of X-ray Cinematography by means of the direct photograph of the fluorescent screen, presented the first results of his work to the Italian Congress of Medical Radiology in 1928, and to the International Congress of Radiology at Stockholm the same year. Since then he has so considerably improved his

system that his most recent results appear to be admirable and really practical and applicable also to man. Whereas in the beginning he had succeeded in obtaining X-ray cinematographs of the movements of the heart and respiratory organs only, he was later successful with the stomach also, thus showing by these two extreme examples, a very rapid and a slow movement, that no organ in movement can present difficulties any longer.

His first cinematographic apparatus differed from the ordinary apparatus by its special lens of the exceptional focus of 0.625, which is extraordinarily luminous and was invented by Luboshez. The new definitive apparatus, shown by him at the National Congress of Medical Radiology at Parma in 1932, has, among other improvements, four object glasses or lenses instead of one. Unfortunately, only one instrument has been constructed so far, on account of its high cost and the difficulty of finding firms willing to manufacture such apparatuses.

This apparatus, which will be illustrated by Luboshez at the International Congress of Educational and Teaching Cinematography to be held in April, will take pictures at a normal as well as at an accelerated speed, and project them without the need of another machine. It works electrically and automatically with the cardiological apparatus; it has a device for counting the meterage for a film 30 metres long and for a duration of five minutes per reel, while it works with films of 16 m/m, which cost about Lire 100 a reel of 30 metres. Finally, it is complete for every form of photographic manipulation and can be charged or uncharged in the light. For a normal picture of some seconds it is sufficient to feed the Coolidge type ampule with 50 mA, on 75 K. V.; a modest regime representing the greatest safety for the apparatus and the patient.

* * *

We have arrived at this stage thanks to Luboshez, who has thus done credit to the

illustrious name of his late lamented father. Not only the activities of medical radiologists, but also biological medical and general culture are enriched by the inestimable aid of a method of study and of cinematographic demonstration which completes the already widespread vision of external forms by the internal view of the body.

The only inconvenience of Luboshez's method is the high cost of the photographic apparatus, but that is only for the moment, for it will soon be considerably reduced if the method becomes as widely used as it deserves in the ordinary cinema also. We shall be able then, at the cost of a 40 or 50 lire each time, to obtain cinematographic pictures, for instance, of the pneumothorax, which today represents the most efficacious cure of pulmonary tuberculosis; or of certain movements of the duodenum which may indicate a hidden ulcer; or the much discussed emptying of the pre-pyloric region; or the movements of any of the articulations and pictures of the normal heart at every age and the pathological heart in any disease. We shall be able to put together a valuable collection of cases, not only of the most demonstrated but also of the rarest types, and to exchange them, whenever necessary, for teaching purposes and special comparative research. We shall even be able to project X-ray cinematographs of the healthy heart, by means of synchronizations of the tones and possible cardiac murmurs with the pulsations to which they correspond, while it will be very easy to combine cardiac cinematography with the tracings of the electrocardiogram.

The pathologist will be able to illustrate his lectures to students, as has been done already in the most important schools of clinical surgery, among others, at the one in Rome directed by Professor Alessandri. He will thus be able to hold the attention of students, which, without the aid of visual facts, so easily and so often wanders during the spoken lecture.

The suffering patient, gasping and in pain, will be able to remain undisturbed in the

comfort of the hospital ward and still offer the cinematography of his poor heart for scholastic demonstration.

From man we can proceed to X-ray Cinematography of animals, for the comparative study that is often so absolutely necessary. And the crowd of great and small, instead of following the succession of human events on the screen in a cinema which frequently presents things that are untrue to life and

accustom them to fruitless dreams or stir up depraved instincts, may at last see revealed the most hidden secrets of our bodies and follow their most obscure and intimate movements. For instance, the unborn child in the matrix, which already reveals itself and moves its skeleton image; or the life which already has the signs of death and is announcing the inevitable at only too early a date.

THE CINEMA AND ITS POSSIBLE APPLICATIONS IN THE DOMAIN OF MEDICAL JURISPRUDENCE

BY

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THE organizing committee of the important International Congress to be held in Rome, among the other reports prepared in connection with educational film has entrusted me with the task of illustrating the possibilities of the use of the cinema in medical jurisprudence.

These applications of the cinema are included in the vaster field of the didactic cinema, which for some time has included an infinite variety of subjects.

Didactic pictures are used in several branches of teaching. It has been generally recognized that the cinema, especially when used to illustrate conferences and lectures, keeps the attention alive and watchful to a much greater degree than the mere words of even the cleverest lecturer. The attention is held by the interest and pleasure which the film projection offers, with the result that the teaching proves very efficacious.

It is a fact that the educational and teaching cinema is being used more and more widely. Numerous teachers make use nowadays of this potent means of propaganda and instruction.

The subject in which the cinema has been most widely utilized is in general and special hygiene. I remember the beautiful films offered to the students by the film repository of the National Hygiene Bureau and the National Committee of Defence against Tuberculosis which publishes a special propaganda picture every year. There are also a number of didactic films in the departments of surgery, dentistry and medicine generally.

The use of this valuable instructional aid is becoming more frequent in other branches of learning.

It is therefore a praiseworthy idea on the part of the organizing committee of the Congress to sponsor a vast debate on the utility of the didactic film in the various branches of learning and in various special subject matters. The film will in this way take the place of the still photographs or lantern slides as a means of illustrating and developing the professor's words.

Medical jurisprudence or forensic medicine cannot and ought not to remain apart from this movement which has, by its very nature, a wide field of experiment and which, appeal-

ing to a public that is often heterogeneous, has therefore need of all the didactic means offered by science.

Forensic medicine is a subject of study which has the lofty task of contributing to social progress, the defence of justice, the proper interpretation and just application of the existing laws of a country. It therefore appeals to the magistrate and the jurist, the doctor and legislator, the functionary and the sociologist, supplying each of them with the findings and laws of science, pointing out the proper method of applying the law, so that it may be in harmony with scientific progress which moves on parallel lines with social progress.

Forensic medicine should spread its work into the social life and operate so that the decisions of legislators, magistrates and doctors are based on certain and irrefutable facts and knowledge of biology, medicine, physics, chemistry, etc.

We have here a good reason why medical jurisprudence which spreads and permeates the greater part of medical and juridical teaching, is, more than any subject, under the necessity of equipping its methods of instruction with all the means that are most easily understood, taking advantage of very kind of scientific progress to adapt it for didactic purposes. Nothing answers these requirements better than the cinema which throws the subject-matter right before the observer's eyes, showing the diverse peculiarities of the facts, the difficulties that are likely to arise and the different ways of getting round them. The filmed picture remains fixed in the mind and the memory, assisting in this fashion those psychological complexes of re-evocation which are so useful in the actual practice of teaching.

Among the various sides of medical jurisprudence, I will make mention of one, teaching of which can be usefully assisted by a use of the motion picture. In view of the fact that forensic medicine is a science which not only applies the principles of other subject matters, but has its own original doctrines, not included in the main body of

medical science, but having a vast field of application in social laws, we can speak of medical jurisprudence in general, of a special medical jurisprudence and of a social jurisprudence. The new departments of forensic medicine which have arisen of late, owing to the spread of social laws governing the activity of bodies of employés, belong to this section of medical jurisprudence. Let us think for a minute of the enormous development given to the work of doctors in connection with workmen's accidents and accidents in general. These are branches of medical jurisprudence which have come into being with the development of labour laws and laws governing employment and the relations between employers and employés. Again, criminal anthropology, created by the genius of Cesare Lombroso, has assumed a vast social importance nowadays, leading in its turn to other branches of professional activity such as the scientific police and prison medicine. We have arrived during the last decades at the concept propounded by Puccinotti and Ramazzini, which considers medical jurisprudence as civilized jurisprudence. This idea obtained fresh impetus from the strictly Roman point of view of Guido Baccelli, who recognized the importance of medical jurisprudence in the twentieth century as an aid in securing the adoption of social laws, and wrote that time would show us political medicine as counsellor to the legislator.

In each one of these branches of medical jurisprudence, of which I have enumerated the commonest and most important, the cinema can well find a place for spreading knowledge and teaching, and for preparing medico-legal experts. This category of experts is at present lacking in efficient exponents, so much so that it will become necessary to impose on the attention of governments and supreme juridical bodies an urgent reform of this department of justice. This becomes necessary in order to limit, if not to impede the condemnation of innocent men or the acquittal of a guilty prisoner, deplorable incidents, which happen much oftener than is generally supposed, and frequently

remain buried and forgotten in the abysmal medico-legal ignorance of the expert and even the magistrate.

In forensic traumatology, which deals with the study of wounds, and the manner in which different wounds are caused, of the effects of various instruments and harmful mechanisms, a well conceived film would be of considerable didactic value. If we proceed to the social application of traumatology, that is to its effect in accident cases, we shall see how extensive and useful would be the field of teaching that could be covered with motion picture assistance, both for avoiding and repressing accidents.

A number of countries have already concerned themselves with teaching workmen how to avoid avoidable accidents. In Austria, the Central Institute for preventing accidents (*Oesterreichische Zentralstelle für Unfallverhütung*) has issued several propaganda motion pictures along these lines. The Austrian association has thought well to add an attractive and pleurably recreational element to the purely didactic character of the pictures, disguising the rules and notions in an anecdotal form. Thus it has produced the picture "Danger in Ambush" (Scenes from the World of Work). (See the Review of International Cinematography February 1933) "The Film for the Prevention of Accidents in Austria" by Viktor Hendrych.

It is certain, however, that from this field of operations we must proceed to pure didactic cinema expositions in the domain of accidents and preventing and repressing them. We must show workers, for instance, the easiest way of protecting themselves from industrial injuries and wounds; we must show engineers the consequences that can arise from these wounds and injuries for the worker's life and usefulness, while we must also show doctors the mechanical instruments that can cause injuries, and examples of these injuries and wounds, which it will be their duty to cure and look after. In this way we shall be engaged in a useful social activity. Since this kind of instruction must be addressed to different categories of persons, awakening

interest in each category and urging each class to collaborate with the other classes or categories, no better method than the film can be found to develop this didactic force capable of inspiring also a psychological protection against workmen's accidents.

The same thing may be said of the prevention of illness and disease, in which department we must, however, recognize that much has already been done, both in Italy and abroad, by means of various hygiene propaganda bureaux, etc. The idea could, however, be well carried a step further, and be extended to the illnesses of miners, workers in the rayon industry, in the mercury, sulphur and lead trades, etc. Great things could be done along these lines for the health of the workers and also for the national economy, especially now that a provident law has made workmen's insurance obligatory for certain special illnesses and diseases dependent on certain forms of labour.

If we turn from the question of preventing accidents to repressing them, we find the employment of the didactic motion picture equally useful.

I should like here to allude to the advantage that could be derived from letting the workman know the damage he makes himself liable to in taking a fraudulent part in simulating illness or in purposely inflicting injuries on himself. The doctor too should be shown how such self-wounding or auto-lesions can be discovered, for this is a matter hedged round with difficulties, some of them seemingly unsurmountable. Often enough, the doctor, though convinced that the workman's injuries have been self-inflicted, cannot prove this clinically and in a medico-legal way. He cannot, that is, prove to the magistrate the absolute veridicity of his diagnosis that the injuries are self-inflicted, or that the illness is being simulated, so that the magistrate can deal with the fraud with all the rigour of the law. If the author of such frauds remains unpunished, he is likely to become a dangerous source of infection for similar frauds with great and evident damage to society.

If we leave the traumatological and medico-

legal aspect of workmen's accidents alone for a minute, and pass on to the thanatological side of the question, that is the branch of forensic medicine which is concerned with problems of diagnosis and the date and cause of death, we shall find it possible to apply the motion picture here too, all to the benefit of teaching and the students. How can we illustrate better than by a bio-chemical microscopic film the successive phases of organic death, which passes from tissue to tissue? Although death is marked by the permanent cessation of the heart and the respiration, it takes place through a gradual dying of all those biological phenomena which constitute the so-called post-mortem vital phenomena which are of such importance to forensic doctors in determining the precise moment of death.

Even a motion picture illustrating the various phases of a legal autopsy would prove very useful to explain the technique of this particular operation to students and would-be experts. Such operation can only be studied with difficulty on the actual subjects, but a cinematographic reproduction makes their illustration easy and profitable to the students.

Nor is this the end of the list of the possible applications of the cinema to medical jurisprudence. In forensic medicine, or to be more precise, in inquiries undertaken by the juridical police, the application of the film to instruction would help to render more evident the successive phases of a fact or series of facts, and would effect an improvement in the workings of the detective and central police tending to make them more scientific and up-to-date. Improvements along these lines, have already been made by the institution of superior police schools (in Italy through the work of Ottolenghi). Here the detectives, the magistrates and officers of the scientific police acquaint themselves with those objective methods, analyses and deductions which form the essential groundwork for their activity.

For instance, it is now always the common practice to make proper scientific photographs

of any place, site, person or object under examination by the investigating police. Still more useful for the purposes of reconstructing scenes and events would be the making of short motion pictures, which in grave cases could reproduce with perfect verisimilitude not only the locality where the crime had been committed, but also the modality of the crime, because a series of photograms in movement will always prove more convincing than any single photograph however well made. It may be objected that a cinematographic reconstruction will contain fantastic and imaginative elements capable of falsifying the facts rather than of establishing them. This would be true if the reconstruction were to be guided by mere fantasy, instead of being based on well proved facts, established to the magistrate's satisfaction.

We cannot deny the utility of a clear motion picture projection of the scene of a murder shown in court, with the locality clearly visible, the position in which the murdered man was found, the precise spot and any signs of a struggle that might be present. Such a picture would assist magistrates or judges to realize the crime much better than any still photograph.

So extensive are the fields open to medical jurisprudence, so useful and comprehensive is the use of the motion picture in teaching forensic medicine in its numerous forms, that it is superfluous to insist on details such as the various aspects of cases of asphyxia, of legal obstetrics, of questions of personal identity and identification marks on bodies.

It is clear enough, after the foregoing remarks, that film teaching would be of the greatest assistance in teaching and generally spreading a knowledge of medical jurisprudence, assisting at one and the same time science and justice.

The didactic film cannot hope to reach all the possibilities of its application hinted at in this brief report unless it evolves and adapts itself to the requirements of specialized teaching and to special cases of medical jurisprudence, intensifying throughout the world the already existing interest therein.

THE USE OF THE MOTION PICTURE IN MEDICINE

BY

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THERE are two branches of medicine in which the film is of great use, whether for scientific research and theory, which cannot do without the cinema or for clinical work that aims at the practical improvement of the student. Both use the motion picture more and more every day. Teaching is becoming more visual and vivid, and any professor will recognize that the student's ear follows the teacher's remarks with greater interest when the lecture is accompanied by animated pictures. There is also the advantage of being able to do without living subjects for demonstrations, which is an important factor in these times.

In *anatomy*, which is the chief base for the teaching of medicine, the film has gained a firm foothold. There are a number of excellent pictures in this field. Owing to the periodical and embarrassing shortage of corpses, it has become impossible in anatomical halls for each student to prepare the various parts of the human body as once was the case. We must therefore repeat cinematographically the work of an expert on the human body, so as to give the medical student a substitute for that study which it is scarcely possible now to give him in the direct way. Thus several anatomical pictures have been made for the second chair of anatomy of Vienna; a number of films illustrating the anatomy of the human head and neck. Studies of the extremities have also been filmed, and some pictures on the anatomy of the chest and stomach are in course of being made.

Physiology too can derive great advantages from this type of teaching. A series of reduced size films has been produced in the *Scheminsky Institute*. There is no need to go into the point here of how far and to what extent substandard films can be used for a large body of students.

Microscopic films are beginning to gain ground in Vienna since it has proved possible to make them with relatively simple apparatus.

In clinical branches, apart from surgery, we may take the department of *neurology* which finds a useful ally in the motion picture. Some years ago the utility of the motion picture in this branch of medicine led to the making in Vienna of some of the first films of this kind. There are a number of neurological pictures in Vienna which have been made chiefly in the Psychiatric University Clinic and the Neurological Institute.

In *surgery* we already possess a fairly large repository of instructional pictures, some pictures being of an orthopaedic character and others strictly surgical. There is an almost complete series of films on the surgical treatment of pulmonary tuberculosis, produced by the surgical section of the Wilhelminen-Spital of Vienna. In the First Surgical Clinic at the Orthopaedic Clinic (Professor Lorentz) as well as in various other surgical and neurological schools, about 30 films have been made, some of them over 1000 metres in length. There is a practically complete series of films of eye operations in the Ophthalmic Clinic (the late Prof. Dimmer).

In operative gynaecology, the sister branch of surgery there are a number of instructive and educative pictures. The two methods of operating for cancer of the uterus (Wertheim and Schauta) have been filmed. The operation for cyst on the ovaries has been illustrated in a motion picture. At the third Gynaecological Clinic of the University, preparations have been made to film all the most important gynaecological operations, both abdominal and vaginal, in this way preparing a regular film library for teaching purposes.

Obstetrics is one of the departments in which the film imposes itself as a necessity. Students who later on will have to practise in the country districts require a good education in this branch of medicine, and it is not always possible for them to witness all the various obstetrical operations which they ought to see. In recent years, when grave obstetrical cases have been gradually diminishing in number and pathological births have become rarer owing to the improvements effected by therapy outside clinics and in the hospitals, medical teaching has been greatly assisted in a most valuable and admirable fashion by obstetrical motion pictures produced and projected with the greatest perfection. The excellent assistance which the cinema can lend to obstetrics was soon recognized. In 1920, a score of films were made at the third University Gynaecological Clinic on abnormal pregnancies, births and operations.

Recently a fresh impulse has been given to the compilation of an obstetrical film library by the introduction of new types of motion picture cameras and the use of panchromatic film. In obstetrics, where it is necessary to be always ready in the wards to make a picture at any time of the day or night without having to make extensive pre-

parations, the relatively complicated apparatus hitherto used has been found very inconvenient.

Following data supplied by Preisecker, the Zeiss-Ikon Company has introduced such modifications into ordinary motion picture cameras that, without any support, and by merely holding the apparatus in one's hand, it is possible to make pictures, thanks to an arrangement of springs. It is important to be able to observe during the whole of the shooting of the picture the field of view through the focussing screen or mirror and to be able to focus exactly. The lengthening of the focus of the lenses allows us to remain, for reasons of asepsis, some distance from the field of operation. In the matter of illumination, 1500 to 200 Watts have proved sufficient. This energy can easily be furnished by three or four Nitraphot lamps or other lamps of the same type when we use a good panchromatic film. We have been able to make a series of remarkable films with an installation of this kind. Modern cinematographic material has succeeded in eliminating the drawback which spoilt all the early films of operations or sanguinary births caused by the insensitiveness of the film to red. The detail which was formerly obscured by patches that showed black can now be made to appear, as, for instance, in photographs of the placenta, where it is necessary to recognize shades of red which can now be clearly distinguished by the new methods. The clinical archive comprises about 40 films which illustrate nearly all the various operations and pathological births.

To sum up then, we may say that both the theoretical and clinical branches of medicine, and especially the teaching of obstetrics, have found an almost indispensable aid in cinematography.

ITALY AND THE SCIENTIFIC CINEMA

By MARIO VENDITTI.

The reports published in this section will doubtless illustrate the possibilities which the cinema offers for scientific teaching, a form of teaching which ought not to be considered only as a form of popularizing the principles dictated by science, which should rather be examined apart as a means of educating the people and as an offer to the people.

The subject should be considered chiefly from the point of view of higher education, making use of scientific postulates and forming rules and regulations for the researches and experiments of the future. Here is a fact which has been several times stated and should not on that account be forgotten: science has created and developed the technical life of the film, but the film in turn has given science the most precious kind of assistance it is possible to imagine.

Technique has evolved micro-cinematography, macro-cinematography, X-ray cinematography, the slow motion and the accelerated projections. The technique of the future will give us television, colour photography and tridimensional cinematography.

It has been with the use of these scientific means applied to the motion picture that we have been enabled to study movement micro-organisms, cell life, scientific analysis of the functioning of the remotest parts of our body, from the circulation of the blood to a knowledge of the working of our internal organs. In this way, and with these means, man has been able to learn the secret of the bottom of the sea and of lakes, the theory of winds, the life and death of things, thought to be inanimate but really endowed with life. These and countless other phenomena, before the advent of the motion picture, could only be studied by the few in the solitude of their laboratories and with the aid of their microscopes.

This intimate collaboration between cinema and science has made the motion picture an applied science in the widest and fullest sense of the term.

Technical and scientific reviews all the world over generally contain ample reports of cinema studies and researches of various kinds. On the eve of the Cinema Congress which will assemble in Rome in April, I think it would be helpful to trace briefly the contribution which Italy has given to this superior form of scientific research.

We can begin with a list of important names: Bastianelli, Alessandri, Cirincione, Ponzo, Bilancioni, Levi, Petri, Parravano, Bordoni, Bottazzi, De

Blasi, as well as those who have signed articles in this Review on medicine, surgery, biology, phitopathology, cinema methodology, without taking into consideration the countless other sections and divisions of cinema applications from agriculture to hygiene, in all of which Italy has made a big show, both from the point of view of number of experiments and research work and their importance.

Motion pictures made by the masters and experts referred to above have passed the frontiers, and have won approval in almost every country in the world. We may mention among many others the following:

Operation of Appendicitis in a case of acute appendicitis by the Clinica Chirurgica of Rome.

Operation on the right lobe of the Thyroid by the Clinica Chirurgica of Rome.

Blepharoplastica for removing Cancer by the Clinica Oculistica of Rome.

Operation for Cataract by the Clinica Oculistica of Rome.

Operation for Cancer of the Breast by the Clinica Chirurgica of Rome.

Trepanning of the Cranium by the Clinica Chirurgica of Rome.

Tattooing the cornea by the Clinica Chirurgica of Rome.

Cure of Cancer with X rays by the Photo-radio-therapeutic Institute of Naples. The list could be made much longer.

It was from Italy that the valuable idea was launched of a medico-surgical cine-encyclopaedia which should consist of a regular cinegraphic treatise for the use, not only of scientists but for students in clinics. Such work is to deal, in a comparative fashion, with all the schools in every department of medicine and surgery, and is meant to be the first cinema text book for that subject which is the most difficult and arduous, namely science. (*La Scuola Superiore*, Rome, 1st Year, Nos. 5 e 6).

Let us look at the plan of work as it was drawn up by the Rome Institute. It was proposed:

"— to trace in a complete and organic form, according to the fundamental and universal laws of medicine and surgery, a definite plan of work to form a regular lofty treatise containing in a long series of films all the general and specific aspects of teaching, in those parts and sections where the use of the motion picture might prove useful for technical,

documentary, micro-cinematographic purposes, and also for the use of the slow motion camera and accelerated running off of pictures and for the use of special apparatus;

"— to consider, also, in illustrating individual operations or medical lessons capable of being filmed in schools, the tendencies and various systems in different departments of medicine and surgery, so that the students of all countries may see what is being done elsewhere than in their own countries and make comparisons and appreciate the progress made by mankind;

"— to accompany this great visual treatise with written explanations (sub-titles) or spoken comment by important masters and teachers of the various schools and tendencies.

"If a university today wanted to acquire a series of motion pictures it would be obliged:

"— to engage in considerable expense owing to the fact that each individual film begins with all that series of complex preparations of a general and preliminary character which increase the length of the picture and waste time and money;

"to see the same parts of an operation which do not differ in any way from one another several times over in order to see something of the few characteristic scenes illustrating different methods, tendencies and practice".

The Rome Institute, it is known, has already started an inquiry on these lines. The outstanding personalities in the international scientific world have notified their approval and interest in the most gratifying manner. Today the cinema medico-surgical encyclopaedia awaits its final organization and compilation.

Nor is this all. Under the auspices and through the direct efforts of Mussolini, the National Institute, the L. U. C. E. was founded and with the assistance of the best experts began the manufacture of scientific films. The L. U. C. E. collection contains motion pictures in the following fields; astronomy, bacteriology, botany, chemistry, zoology, biology, surgery, pathology, zootechnicology, anti-tuberculo-

sis propaganda, malaria, sex hygiene, general hygiene, alcoholism, etc.

The mysteries of the ocean have been filmed in pictures which stand up well with foreign films of the kind. The list includes motion pictures of the life of bees, ants, spiders, wasps, butterflies, mosquitos, plant parasites, wheat, vines and the cine-analytic study of micro-organisms. All this without taking account of films on the study of movements, on land reclamation and agrarian transformations, on the "battle for home-grown wheat", on forestry and hydraulic systems, on work, agriculture, industry, geography and folklore.

Today, the cinema has entered with full rights of citizenship into the lecture rooms of universities and the classrooms of superior institutes of learning and schools. In addition to this, the scientific film in its simplest and most easily comprehensible form reaches the great mass of the public in popular editions, especially in rural centres, through the cooperation of travelling cinemas and agrarian summer schools.

A recent plan supported by the National Research Council is worthy of note. In view of the exceptional importance of the cinema question, the Council formed a special commission composed of three members of the Italian Academy, the Director of the I. I. E. C., two representatives of the L. U. C. E. and representatives of the Ministry of National Education and the University of Rome to carry out all necessary inquiries and study the best methods of applying and utilizing the motion picture in superior culture and science.

What has been done already is, as we have said, remarkable. Although the work has not yet been fully coordinated and definitely organized, what private individuals and bodies have done in this department shows us that a great deal still remains to be done.

It is therefore well on the eve of an international Congress, which has been summoned to lay down the policy for the future existence of the motion picture, that the magnificent part Italy has already played in this field should be known and appreciated.

VOCATIONAL TRAINING AND TRADE EXTENSION FILMS

BY

Dr. Luigi Barzetti.

Task before Vocational Schools.

THE Vocational Selection school in Italy is the first step in technical and trade teaching. The decree which instituted it considers that it can be an end to itself in the sense that it may constitute a preparation for the common labourers' work. As a matter of fact, though, the chief characteristic of the school consists in exercising a selection among the mass of pupils coming from the elementary schools before placing them in given courses of study suitable to their aptitudes and propensities and their material possibilities.

Vocational training schools fulfil the double task of completing elementary education and of directing the pupils scholastically towards this or that technical trade or handicraft. In both cases the pupil gains a broad, or rather, a summary notion of life in the factory or workshop, so that the lad who has received the beginning of a theoretical training makes his first contact with life.

Various Applications of the Cinema.

The cinema in this phase of teaching has a role of fundamental importance. In other grades of technical teaching, as we shall see later on, the cinema has a valuable but subsidiary role. In vocational training and directional schools its importance is basic since no teacher's ability nor any penetrative capacity of pedagogic science, can, through the magic of the word alone, so illumine the lesson as to show the workshops and turns of

work as they really are and in such a way as to arouse profitable interest.

To teach life and illustrate it even on the broadest lines in its labour phases requires that the thing being taught should be seen as well as spoken of, whence the vocation directional school can only be satisfactorily run when an extensive use is made of the film.

We must say at once that the kind of film required for vocation selectional schools is a very complex affair and not at all easy to make.

It would appear at first glance that the question can be simplified by having a very rich collection of films and plenty of time taken from the ordinary school hours for giving projections. This, however, would really only be an apparent simplification since it would mean using the cinema on a vast and general scale instead of in a very precise and well thought out manner proposing to reach its objectives in the most economical and practical fashion. A vocation-directional film ought to unite in itself the good qualities of at least four or five general films. Since it is not easy to project a film dealing with glass and glass working, another on iron, another on wood, another dealing with building materials, etc., to arouse the pupils' interest, the interest must be aroused by the projection of one film which puts together the characteristic aspects and uses of glass, iron, wood, building materials, etc. In other words, the film must be a synthesis in

the sense that it will be an intelligent composition of fundamental elements and aspects.

Special Characteristics of Teaching and Vocational Films.

The writer has already had occasion to make some ten films treating dealing with the principal industries. It is credible that the production of similar films in Italy will be the best way to introduce the cinema for the purpose of selecting young people for various trades and industries. In the pictures I was concerned in making, the panoramic idea prevailed, through the impression that the presentation of the surroundings and atmosphere of work and workshops would arouse the requisite interest and emotion among the spectators. It must, however, be admitted that, if we do not want to produce inefficient work, films produced on these lines are not a success. The panorama or presentation of the site of a factory or workshop with all the objects and incidentals composing it ought to be so technically perfect and suggestive as to be impressive in itself. If this is true and relatively easy to produce in practice, the result cannot always be sure because things, like persons, lend themselves more or less well to being photographed that is, they have a photogenic quality. It can easily happen that a trade, which is healthy and should attract vast masses of workers all for the good of the general economy, does not show up well in its essential characteristics when illustrated by the film. It may be that these qualities and interests do not stand on the screen as do the characteristics of other trades and industries where the work of choosing labourers is necessarily more rigorous and delicate. There is the case of the steel industry. The flow of incandescent metal is just as suggestive and attractive on the screen as when actually seen in the works. Indeed, in this instance, the cinema improves on reality, for there is an absence of heat which in works of this class is not a factor to be disregarded. It expresses a fascinating power in the matter which is much easier to see than to undergo.

Art can work the miracle of entering into the spirit of all things and illuminating all shades of meaning. It can show the physical grinding down of the worker exposed to the hardest kind of labour, and can render poetic the calloused hands of the humble sons and daughters of toil. Art applied to teaching like art applied to an industrial process, cannot produce masterpieces permanently. As often as not, it is a simple and rational instrument, an incentive. The cinema, to become general and to provide the quantity of subjects required by the schools, must find the proper way to be economical and easily understandable.

We have said that the vocation-finding or guidance film is a film of synthesis. To be more exact, one could define it as a film of associated and alternative syntheses according to the effects which each one of them is capable of producing as compared to others.

By synthesis we must understand the characteristic revelation of each institution and each type of work. If we remember that choice and selection mean looking at the physical and psychical qualities of the individual, it must be effected in such a way that the synthesis operates simultaneously and harmoniously on both aspects of the person. It should give the idea of the degree or grade of effort demanded by each type of work, the results, the individual qualitative aspects of each operation, so that the work be characterized and rendered attractive. The capability to render the importance of the characteristics and attractiveness of each kind of work presupposes a high grade of knowledge of the industries dealt with, as well as no little didactic ability. If such a task is carried out with wrong criteria and mistakes, the whole object of the attempt will fail.

To sum up what has been said, the production of vocational training films and films helping young people to choose careers requires the following things :

- (1) an accurate individuation of the objective and comparative content of different productive activities ;
- (2) proportionate association of these

various contents in an organic and harmonious whole ;

(3) inclusion of the technical element in the human element so as to render possible the realization of a social reaction.

In the vocation selectional film, the comprehensive association of a movement of objects must be considered indispensable for the arousing of sensations. The prodigy of the transformation of matter is not sufficient. Men, and especially the young people, must move and animate it with the light of their spirits, and, as far as is possible, with evidences of their daily existence. When a film is made in this fashion, the elements that will make it valuable as a teaching force are not lacking. The film can also be of service for those whom the vocational school has to use as an end to itself, allowing the film to operate as a technical education instrument of the first importance. The opposite is not equally true, though, namely that a general technical film for elementary services can also be useful for the selective and the helping of the pupils to make their choice. This is because the general technical film has a limited field, and is therefore incapable of reaching all the tendencies and interests of the human spirit.

Uses of Technical Teaching Films. The technical teaching film is in certain ways easier to utilize in the schools engaged in technical training after the choice of a trade has been made in the career-choosing schools.

While the film that helps towards the choice of a trade or career is a combination of syntheses, so the technical training film is one of analysis. In the case of the former film, we must look for the surroundings and circumstances connected with the worker's existence, and consider them with the individual's pathological and psychological characteristics in a way that should be ideally human rather than coldly scientific. In the latter kind of film the material dominates exclusively, and the more specific the task to be carried out, the more restricted and

circumscribed becomes the material. The difficulty of the cinema here lies is the limitations surrounding its use. The film has not to exercise its effect on indefinite and numerous masses like those young folk who have just left elementary schools, but on categories of young people who have already shown their tendencies and have already a certain technical specialization. The thirty or so pupils of a school can form a public which has special requirements, if there is in the district some specialized industry or trade. The more technical and difficult the instruction becomes, the higher it ascends the scale of scientific values, the smaller will the public become until it ends by being composed of quite exceptional elements. In other words, the more important and full of meaning the role of the film becomes, the more limited grows the field of its utilization. Logically, in the end, we arrive at the cinema which is useful only for the research worker, that is, for one person alone with a scientific programme of his own, inapplicable to other people.

The technical instruction film is analytic by its nature, since it must render clear and evident the reasons for each operation, each movement of each coefficient of the cycle of production. It is not possible to teach unless we show the inner reason for every action, the wherefore of every motion that gives a result. Let us take the case of teaching the working of some machine. The machine must obviously be shown in its entirety and its general use explained. The objects of the machine will have to be explained in relation to the trade or industry using it, and this will be a fundamental necessity, since it is useless to tackle the details without first of all understanding the whole.

In the instruction proper, however, the working of all the parts of the machine must be demonstrated, all the single operations the machine performs, the use of each part, why one kind of material is used rather than another, the evolution of the machine and its manufacture. Analysis means an understanding of the order of the components of a thing

and of their successive employment. One of the miracles of cinematography lies here, that is, it can gather up and show us piece by piece and once and for all the various parts of any mechanism, stressing the more important ones, and illustrating all of them in various aspects and circumstances. This can be done better by the film than if the students had the machine itself to learn from.

The present writer has had occasion to make experiments of this kind with proper technical instruction films. Such films must be considered as belonging to an experimental activity which is wearisome and rather uncertain, at any rate to begin with, and only after some time becomes comparatively precise. Let us recapitulate here, as we did for the vocational or guidance film the absolutely essential conditions for using a technical instruction picture :

(1) explanation of the relationship existing between the part under examination and the whole ;

(2) analysis of the parts, to be explanatory of the use and functions of each element beginning with the principal ones and then coming to the secondary ones ;

(3) indications of the reasons and effect of each movement and operation in the machine ;

(4) recapitulation in a logical and well ordered manner ; possibly a running over of the content and reasons of single factor of the material under consideration.

Animated Cartoons and Technical Teaching. The most conclusive experiments made in this field have shown the necessity of an association of the panorama, even a detailed panorama, with the animated cartoon. There are technical and didactic reasons behind this.

We cannot teach anyone a piece of work without detailing the cycle of operations. The detailing or schematization is like a skeleton of the cycle of operations with its connecting links, its interdependencies and the elementary associations of its causes and effects. When the secret of the locomotive

is revealed in the boiling of the kettle, the technical panorama is unaffected, but the fundamental principle is acquired in a stable and rigorously exact manner. It becomes interesting for the student to find the principle through research and observation and individuation of the particular details.

Didactic reasons are essentially reasons of method and effect. The animated cartoon is born on the screen bit by bit. Starting from a given point, it constructs the schematization in the way a machine would really be created, and here again the cinema beats in rapidity and clear exposition of phenomena reality itself. The pupil following a traced line or the slow movement of an indicating arrow becomes, in a way, the artificer of the machine or instrument himself. The interpolation of clear and severe pictures of the whole of the machine or other object forms an opportunity for mental repose and holding the attention.

Didactic Film Repositories. Having outlined the principle requisites for vocation choosing and technical instruction films, there remains the question of the creation of film repositories capable of satisfying the demands of quantity and variety of films necessary for a proper use of the cinema in the formative process of finding careers for generations of young workers and then instructing them in such careers or trades after they have decided upon them. This is a big problem requiring belief capacity and adequate means. It may be it will never be possible to satisfy all the requirements of these two classes of films, so constant are the changes and improvements taking place. There are two fundamental favourable circumstances. The first is that films of this nature are essentially international in character, the second is that the continued technical progress and advances that will certainly be made will not render the earlier films useless, but will leave them with no little of their original didactic value. This is for the reason that it is not possible to go straight to the advanced stages of technique

without a knowledge of the earlier stages.

The solution of the whole question can be arrived through the combined, united and organized work of the technicians and teachers of various countries who will find laws common to the technical and scientific activities of all civilized peoples.

They will be able to find reasons and justification for a common curriculum, especially if we take into consideration the damages which would result from a multiplication of analogous attempts in different countries and an unnecessary prosecution of theoretical dissertation and experimental diletantism.

CINEMA, TECHNICAL TRAINING AND WOMEN'S WORK

By LAURA DREYFUS-BARNEY.

Women's work at the present day is practically identical in extent with that of men, and everything that has been done by the cinema in connection with vocational guidance, technical training, the prevention of accidents, etc., is of practically equal interest to women, because though some of the pictures may be considered as dealing strictly and exclusively with male occupations, it often happens that useful lessons may be drawn from them or some application may be made of processes shown which would be helpful in connection with female labour.

The following is a brief sketch of the work carried out by the motion picture in connection with the various problems and aspects of labour.

VOCATIONAL GUIDANCE AND TECHNICAL TRAINING. — The cinema is frequently a very useful aid in vocational guidance and technical instruction, and in a good many countries the ministries of Education, Agriculture, Public Works, etc., already possess important film libraries or repositories dealing with these subjects, which are made use of by numbers of schools, works, and public and private institutions.

In view of the results obtained, a number of directors of technical training institutions propose to increase the use of the motion picture for aiding young people to choose an occupation. Thanks to the cinema, young people can be attracted to occupations about which they had never thought before, a fact which will help to avoid the overcrowding of many trades and crafts, which attract beginners owing to the fact that they are popular and well known to everyone.

In this connection, much might be done with films showing the technique of a number of the minor handicrafts that are falling into desuetude in the country, such as basket-making, the working of manures, the repairing of farm machinery, etc.,

which should be better and more completely known.

There is no doubt that other systems, such as drawings, lantern slides, visits to factories, etc. should not be neglected; but a moving picture constitutes a lesson which is much more easily understood by young people, who frequently have only a rudimentary intellectual preparation. Thus, the International Congress of Technical Training which was held in Paris in the beginning of 1932 passed a vote for a greater use of technical training films and those for vocational guidance, and voted also the creation of a centralizing organization in every country as well as the utilization of the permanent centre of the technical guidance cinema of the Institute of Rome as a bond of union between the various National Institutions.

In many works dealing with the choice of an occupation, considerable emphasis is laid on the contribution of the cinema to vocational guidance, but if this kind of film is to give all the hopedfor results, it must respond to certain requirements: brevity, clearness, the facility for accelerated or slowed-down projection according to the case, and above all, sincerity. It must show, that is to say, all the advantages and all the inconveniences of the occupation that is being illustrated. Dr. Hans Curlis's film on the graphic arts, which was produced by the *Institut für Kulturforschung* of Berlin, may be considered as a perfect example of this type.

The progress of the technical training film is in the front rank of educational cinema activities in every part of the world, as the following instances will show.

In England, the Wardour Co. has brought out several films showing the origin and progress of the most important British industries, and the New Era has started another series on the same subject.

The University College of Wales is preparing two versions of a film on the best cultivation methods, one of which is intended for the use of farm schools and farmers; the other being of a more general character.

In another field, Dr. J. R. Gill has produced a film on the manufacture of a porcelain crown for the use of students of dentistry courses.

In the United States, some industrial and technical films of the type of "*The Manufacture of Car-bolic Soap*" and "*The World of Paper*" have been produced, as well as the film on mechanics by the C. W. Briggs Company of Philadelphia, the industrial-publicity 16 mm. film of the University of Kansas and a film in California for teaching design applied to mechanics, etc.

In France, there is a film by M. Cantagrel in the film library of the Paris Schools of Commerce on coal-handling on the Seine, and another by M. Mayer on the glass-blowing art. M. Bloch, chief engineer of the French State Railways, spoke at a meeting held in Paris on August 21, 1932, of the production of new films for the instruction of the repairing staff.

From the agricultural point of view, a good film by William de La Fontaine on *The Farm Speaks to You* (*La ferme vous parle*) shows the work on farms, and especially the raising of animals intended for food.

At Moscow and Leningrad, the longest sound film in the world has been produced; it is in 10 parts and runs to 25,000 metres, and is intended for the instruction of young people desiring to become motor-car drivers. Russia has also a film on naphtha, and one showing the efforts of the U. R. S. S. to ensure its independence and to secure its supply of cotton. There is another, "*The Rose of Salor*" on the manufacture of carpets and the part taken by women in this industry.

Nor must it be forgotten that use is made of the film at times to complete certain inventions. It is pleasant to think, too, of the interest aroused in a workman who sees on the screen how his trade is conducted in other countries and what systems are used there. It often happens that the mere comparison of different procedures will suggest improvements.

We may mention an interesting detail showing the value of a film in a case where it would never have occurred to anyone that use might be made of it. In a trial that was being held in England on some manufacturing questions, a film showing the manufacture of glass was projected before the judges to aid them in settling the controversy.

WORKMEN'S ACCIDENTS AND PROVIDENT SCHEMES.

— Films on workmen's accidents and on the pre-

vention of accidents are very difficult to produce, because they require both knowledge and competence on the part of the producer. When they are well done, they can be of the greatest service, and as a matter of fact, their use is continually spreading.

They may be divided into two categories: those of a documentary and technical nature, which are addressed only to specialized and technical workers; and those of a romantic and entertaining type, which are suitable for all and are addressed to the general public. The latter illustrate the dangers that may be encountered anywhere, traffic dangers, risk of fire, first aid to the injured, etc.

The system followed in the case of the former type of film is for an inspector to go from workshop to workshop and project the film, making a comment on it in the presence of the workmen and of the chief technicians. This has been done several times in Germany.

The cinema has made considerable progress in this field, in several countries. For instance, the American film "*Why?*", which was addressed to metallurgical workers and miners, had the greatest success. In France, the foundries of Foug had it projected in their workshops for the prevention of accidents. A purely documentary film was produced in France by the Railways Companies of the North on the use of the hook-pole, with the object of instructing the staff on the subject of this new system of decreasing the risks of accident. From the scientific point of view, we may mention also Jean Painlevé's and Dr. Claoué's films for teachers.

In Italy, the L. U. C. E. has produced a series of films for the National Association for the Prevention of Accidents on the precautions to be taken to avoid the commoner accidents.

In Germany, certain bodies such as the iron and steel associations for South Germany at Mainz and that of the building industry at Munich, and the association of the printing art at Leipzig, have had specialized films prepared. In 1929, no fewer than 280 projections had already been given before miners on protection against accident.

We may also mention the English film "*Behind the Scene in the Machine Age*", on the employment of women workers.

Among films addressed to the general public, we may mention the Austrian film "*The Dangers Around Us*" on the methods of educating the public to look after itself in this respect; and also an interesting German departure: the Small Traders' Association at Berlin, which numbers 60,000 members, has had some typical films produced by a process patented by the Excentric Film. The idea is to

introduce an animated cartoon, featuring a comical personage who comes forward when there is an accident and shows what preventive means should be used, what aid should be given to the injured, etc. These films have had a great success, on account of their humorous side and freedom from educational pedantry.

In Holland, a film has been produced by the Traffic Society of Amsterdam, with the object of avoiding traffic and circulation dangers.

HOUSEHOLD EDUCATION AND DOMESTIC TRAINING. — The cinema has already assumed an important function in this field, the films dealing with these subjects being chiefly of interest to women.

In a general way, the end aimed at is to help housewives to save an hour or two on the housework and to devote this time to the care of their children and the cultivation of their own minds. The greatest interest has been aroused by this form of teaching in several countries, and a number of experiments have been made in it.

A great Belgian manufacturer, J. Mélotte, gave the first funds for the foundation of an institution for the purpose of studying all the practical methods of household education with the object of getting the greatest results with the least effort. A National Centre of Studies has also been formed in Belgium, in the hope of reaching even greater progress in domestic economy.

In France, Mlle. Bernège deals with these problems in her publications on the *Application des principes de l'organisation scientifique du travail ménager*. In Rome, Dr. Diaz-Gasco presented some interesting reports hereon to the Congress of Domestic Training. At Freiburg, in Switzerland, all the International Congresses of the International Office of Domestic Training have dealt with this question.

In the United States, Mr. Gilbreth of New York and Mr. Ch. Fredwick have specialized in studies on the domestic art. Certain publications, such as *The New Housekeeping*, are really remarkable productions.

Thanks to the cinema, we may be able to bring about more efficient methods of carrying out the various domestic activities and the rationalization of these labours, as well as a household training that gives a better yield. Films showing the positions that should be taken and those that should be avoided, the use of domestic utensils, the way of working quickly and well without wasting time, would be of the greatest use, because the photographic lens catches the tiniest detail. By following these principles, Mr. Sullivant of Saint Louis in the

United States has produced a film of 200 metres which shows the best way of mending clothes.

The National Institute of Industrial Psychology of England is studying the production of films illustrating the way to overcome fatigue, and so on.

TECHNICAL TRAINING BY THE CINEMA. — We must not forget technical training by the cinema, seeing what an increasing part woman is taking in this branch of activity.

A number of countries are considering the technical training of all those, men or women, who intend to work in the cinema, and are opening special courses for this purpose.

A large number of such courses have been instituted for years past in Los Angeles, and indeed all over the United States. The technical courses of the cinema in Japan are attended by more than 500 persons. The Regent Street Polytechnic in London opened a technical course in September, 1932, which is to last two years. At Leningrad, the *Techkino* has been founded for cinematograph projections in schools and technical plants. In Holland, the *Kulturfilmcentrale* provides for the training of young cinematograph cameramen. The courses are practically free of charge and are much sought after.

Leaving aside the actress, whose merits and courage are often deserving of admiration, we may consider the women acting as directors, who face unknown dangers to gather documents of the highest interest, of the type of that produced by our own colleague, Germaine Dulac, President of the Cinematograph Section of the National Council of Frenchwomen.

* * *

CONCLUSION. — The important part taken by women in the cinematograph world seems to show that they have a call for this field of social activity. Each of us, to however modest an extent, can bring her contribution.

The members of the *Committee of Women's Work* will help us to reach the ends we are aiming at in our sub-committee, namely, the communication to national correspondents of everything that seems interesting to us in cinematograph production, in so far as it may be of assistance to women and families, their progress, their work, in new departures which seem promising and those which do not.

We shall thus be kept in touch, through our correspondents, with the efforts that are being made everywhere, and we shall be able, by combined action, to work for the evolution of a motion picture that will aid in the solution of the problems of women's labour.

TEACHING POSSIBILITIES OF THE CINEMA, ESPECIALLY IN REFERENCE TO THE RE- QUIREMENTS OF TECHNICAL SCHOOLS

Società Umanitaria (Loria Foundation) Milan.

MOVING PICTURES. — A variety of instruments and a varied technique are made use of in teaching, with the object of continually getting more and better results; and these aids to teaching have become increasingly more finished and potent, from the simple, elementary instruments used in the past to the more numerous and infinitely more complicated aids introduced during the last and especially during the present century.

Without wasting time on the discussion of didactic methods, which might take us back to the dialogues of Socrates and the peripatetic teaching of Aristotle, both of whom tried to increase the interest of their disciples by the form or place in which the teaching was imparted, let us take one of the aids to teaching which have been used from time immemorial, namely, drawings, which complete the explanations of the teacher by giving a visual impression of the thing explained that is frequently indispensable. With the passage of time and the discoveries of science, the more exact representations of photographs and lantern slides were added to the drawings in use.

There is no question as to the efficacy of these aids, but they do not suffice to give a static impression of certain subjects or phenomena, and what is really frequently of most interest in teaching is to give an illustration of movement, both because the study of movement, such as the technique of certain operations, is interesting in itself, and because it is necessary to show the complexity of acts resulting in the fact illustrated.

SILENT AND SOUND FILMS. — This dynamic vision can be given in sound and silent films by the cinematograph, the "register of movement". There are naturally much wider possibilities of application in the sound than in the silent film, because in the former we not only follow the movements of bodies, etc., but can at the same time listen to their explanation and illustration by a specialist. The sound film thus combines the advantages of an oral lesson illustrated by lantern slides or by the silent film; and by its means expert explanations by particularly competent teachers, who would naturally use the greatest care in preparing lessons intended

for numerous pupils of different grades, can be given in the smallest and most remote school.

The sound film could never, of course, entirely replace the oral lesson as given at present. Being a standard product, it can never be made to meet the special requirements of each set of pupils, so that the teacher will always be necessary, to modify his explanations according to the degree of preparation and the character of his pupils and also according to the ends aimed at in the school where he teaches. He will stimulate the children's critical sense and love of study by discussing special parts of the lesson and going into them more deeply thus helping them to overcome difficulties and reap the full benefit of what they are studying.

COST OF APPLYING THE CINEMA IN TEACHING INTERESTS OF THE TEACHING BODY. — At this point, the important question of cost comes up. It is impossible to deal thoroughly with this problem, however, for lack of sufficient data, and we will therefore content ourselves with pointing out:

(a) that technical progress is extraordinarily rapid in cinematography, radiophony, etc., and every technical innovation means either an improvement in quality or a reduction in cost, or both;

(b) that the public to which educational films are addressed is not only a *sure* public, but one that is continually increasing, since the increase of a nation's wealth means an automatic increase of the individual's economic possibilities of instruction;

(c) that there is a very large potential public for many of the branches indicated below. The silent part of the film could be used internationally, with the addition of a post-synchronization in the respective language of each country;

(d) that the teaching body will suffer no economic disadvantage from a wide application of the cinematograph in teaching. This statement would be superfluous but for the fact that certain very shortsighted persons see in every technical innovation a menace to the worker's possibilities of finding occupation, whether his branch be intellectual or manual. The teacher would not be in any way eliminated in this case, and a whole new

field of occupation would be opened in connection with the production of these films.

THE CINEMA IN THE SCHOOL AND INCREASED INTERNATIONAL SOLIDARITY CONSEQUENT ON IMPROVED UNDERSTANDING BETWEEN NATIONS. — Looking forward, we can have no doubt as to the utility and possibility of a widespread and rapid development of the application of the cinema in teaching, in the form of silent, sound or talking films or in the finest form of television coupled with radiophony. Considered, in this wider fashion we have every right to conclude that cinematography in schools will do much to encourage the spirit of international solidarity. Rapid communications and the consequent improvement of international trade has a great influence on the development of international economic solidarity. The intensification of cultural relations brought about by the introduction into schools of films illustrating the art, economic activities, and, in a word, the life of other peoples, will contribute to the maintenance of peace and therefore to improved relations between the nations by making clear the common ground on which the civilization of Western peoples is based.

WHERE THE CINEMA CAN BE USED WITH BENEFIT. — The following is a sketch of the different branches of education where the cinematograph could be applied on the widest scale :

(a) Culture :

Astronomical geography, physics, anthropology and economics.

History : the progress of the life and customs of peoples throughout the centuries ; illustration of the monuments of antiquity ; the march of technical progress and the application of inventions ; history of art.

Botany, mineralogy, zoology, meteorology ; environment of certain animal and vegetable species (sea bottoms, tropical forests, etc.) the structure of certain geological formations, types of landscape, etc.

Physics : the laws of motion, principles of optics, electricity ; application to scientific instruments, installations, etc.

(b) Physical and spiritual preparation of youth, national propaganda :

Propaganda of national products : illustrations of shows, exhibitions, equipment of national industries, possibilities of substituting national for foreign products in various fields.

Incitement of young people to enter the dif-

ferent military and other organizations for youth ; most attractive aspects of collective life and hierarchical organization ; incitement to love of the fatherland by illustrating the deeds of the past and the functions reserved for youth and organizations of youth in the future ; demonstration of the need of discipline (many of the films considered under letter *b* are suitable for presentation in the form of stories).

Sports : physical education, rhythmical movement ; propaganda against tuberculosis, alcoholism, birth control.

General hygiene, sexual hygiene, professional hygiene.

Regime : corporative organization ; collaboration of classes in opposition to class war.

(c) Technico-artistic and technico-professional fields :

Singing, music.

The nude, anatomy.

Harmonic movement of individuals and groups ; classical dances.

Descriptive geometry, illustrated in animated cartoons, to bring out in relief the projections, rotations, inclinations of planes, development of solids, sections, penetrations and their developments. Theory of shadows, perspective, theory of low relief and its application in scenography.

Engineering. General problems : internal strain of girders, with pieces of crystal standing upright and at angles with polarized light under all the strains of tension, compression, flexion, near flexion, tension-flexion, torsion. Simple static and hyperstatic reticular structures made with models under any kind of pressure so that the elastic displacements beneath strains caused by weight or temperature may be seen ; elastic shafts. Technique of buildings in wood, iron and reinforced concrete. Industrial engineering and chemistry ; the different cycles of motors, their working shown by sectioned models.

Working of blast furnaces, rolling mills, installations for making sulphuric acid, synthetic nitrates, etc.

Series of transformations undergone by certain raw materials (textile products, skins, etc.) in the process from raw to finished products.

Systems of working : position of the operator at work (ordinary and slow motion photographs). Technology of certain trades. Scientific organisation of labour ; rationalization ; assistance in choosing an occupation.

(d) Domestic training schools for girls :

Domestic economy.

Child rearing.

Demographic propaganda.

EXEMPLIFICATION : APPLICATION OF THE CINEMA IN THE TEACHING OF DESCRIPTIVE GEOMETRY. — Teaching by the aid of " animated cartoons " to bring out in relief the projections, rotations, inclination of planes, development of solids, sections, penetrations, etc.

Variation, rationalization of solids and their orthogonal, isometrical and central projections, obtained by the aid of suitably arranged lights. Outline drawings with progressive constructive stages.

Central projections on curved surfaces (arches, walls). Central projections on mixed surfaces. Outline drawings : realization.

Theory of shadows. Shadow cast, shadow thrown, the point, the straight line, the plane, the straight line on the plane, the straight line on solids (mixed surface) ; the plane on the plane, the plane on solids (mixed surfaces) ; solids.

Outline drawings with progressive constructional stages. Limits.

Shadows in isometrical projections.

Perspective. The human eye. The camera obscura. Perspective on glass. Systems of transferring perspective. Normal perspective. Rational line from below upwards. Effects and defects. The visual cone. Visual possibilities of the human eye. Extravizual perspective possibilities.

Outline drawings with progressive constructive stages : (1) in normal perspective, (2) in accidental perspective, (3) in rational perspective.

Theory of shadows in perspective. Sunlight, artificial light. Effects and Defects. Pictorial qualities. Outline drawings with progressive constructive methods.

Conventional perspective. Isometrics. Isometric projection of axes. Rotation, varied rotation (rationalization). Direct and indirect procedure. Outline drawings. Dismemberment of constructive parts and recomposition. Realization with shadows.

Theory of *bas-relief* and its applications in scenography. Effects and Defects. Limits. Construction and Development. Positive and negative low relief. Shadow, luminous intensity and colouration. Theoretical-graphic possibilities of realization.

THE SCIENTIFIC ORGANIZATION OF WORK AND THE CINEMA

By ENGINEER GIACOMO RAFFAELLI.

Can the cinema exercise a useful influence for spreading information regarding the scientific organization of work ? The answer can only be in the affirmative, first, because to teach people how to work in a rational fashion is implicit in the function of technical instruction exercised by means of the motion picture. It would be an anachronism to use an automobile to draw an old-fashioned coach.

The second reason is that the scientific organization of work consists in defining the beginning of and the methodology of work, that is, it is technological material like any other or like many others.

In wishing to gain a more detailed idea of the kind of motion pictures necessary for teaching the scientific organization of work, or rationalization of work in other words, we should do well to remember that the content of this formula is absolutely illimitable.

Wherever and however work, even personal work, is carried on, the methods of doing it may vary according to the temperament, subject, will, and the material and mechanical means utilized. Thus in

industry, commerce, banking, agriculture, public administrations and private businesses, and even in family life, there can always be found a problem needing solution by the rationalization of work.

Sometimes the variety of combinations and changes will be limited ; in other cases, the possible alterations in the schedule of labour will be greater, with greater or lesser chances of passing from the empirical to the ascertained, from the subjective to the objective. The problem will, however, always exist.

Thus the use of the cinema may prove to be almost limitless. What we should do is to find out which are the most convenient forms, the shortest routes, since there is certain relation between undertaking and result, effort employed and possible benefit obtainable.

The connection is one and individual : it is the interest which the material presents from the cinematographic point of view, first for the production of films, and then for their use later on. The possibilities for use in industry are more evident and concrete than in other fields. The technical

elements are more favourable in the industrial cycle than the administrative ones.

The cinematographic process to follow is evidently that of films for normal technical instruction : general aspects, schematization, careful demonstrations of structures, cycles of work illustrated step by step, secret process by secret process. Animated cartoons can very well be used in these circumstances, and panoramic stills.

An essential for films making propaganda for rationalization is a comparison illustrating the advantages and disadvantages of correct and incorrect methods of working. The student ought to possess an idea of the antiquated systems and structures which modern methods have put out of date. This is a necessary step in the rationalization process of tomorrow. If we did not do this, we should be teaching pure technology.

Rationalization is as often as not a matter of details.

It would be a great mistake to suppose that our marvellous industrial progress is exclusively the result of strokes of genius.

Edison's words are worth citing in this connection. He attributed the satisfactory solution of his inventions as to 10 per cent to imagination and as to 90 per cent to patience and hard work. Our own Marconi is a shining example of the value of patience and steady work. His ideas have opened up limitless fields and endless possibilities, but they have not only been due to his magnificent genius, but also to his powers of perseverance.

The discoveries in industry are not numerous. Many of the inventions that are regularly patented in all countries are inventions which seem matters of small account to the non-expert. Sometimes it is a lever which is placed in a different position or a wheel made of some special material.

The scientific organization of work presupposes the careful examination of all novelties and patents which are being adopted or considered in the work under examination, everything in fact which concerns the distribution and utilization of motor force. The importance of detail cannot be overestimated, and its study may even seem to be reduced to an absurd degree.

We can consider the cinema useful for the rationalization of work in the following particular cases :

(1) to encourage the study beforehand of the disposition of objects, plant, and the tools and instruments and labour and service. The cinema can examine these questions for illustrative situations and concrete results ;

(2) to give students the function of controlling and organizing works, especially in the productive cycle. The cinema can prove an excellent instrument to be used against waste in factories, and an excellent instrument for teaching the detail plan of any operation of work ;

(3) It can teach people to understand a summary of the relations of interdependence between all the determining factors of an economic result, including human and moral factors, as well as technical and economic factors.

Perhaps a few fundamental films in which the expressiveness and the practical utility of each of the arguments considered can be assumed to be sufficient to form a cinema archive or repository of worth while proportions.

This is true because it is not necessary, in the field of rationalization, to go so thoroughly into the subject in its infinite forms as is the case with technical instruction. It is sufficient to spread a knowledge of fundamental ideas and criteria to form the worker's mental equipment before educating his normal aptitudes and capacities. When the worker has accustomed himself to reflect and to analyse the different results of his work according to the intelligence and care he has put into it, he will himself look after the solution of his own personal technical problem. It is therefore to be hoped that first and foremost cultural bodies and producers' organisations in various countries will come to an understanding with regard to the formation of a film repository of rationalization pictures since this would mean linking the cinema up with the interests of the great mass of producers irrespective of their particular branch of activity. It would also mean encouraging this mass towards fresh research and inquiry for the near future.

THE CINEMA AS A MEANS OF PROPAGANDA FOR THE PREVENTION OF WORKMEN'S ACCIDENTS

BY

Viktor Hendrych,

DIRECTOR OF THE AUSTRIAN CENTRAL BUREAU FOR THE PREVENTION OF ACCIDENTS.

Connection between Accident Prevention and the Cinema. **T**HE prevention of accidents consists in that sum total of measures and systems created for effectively preventing accidents. Since three-quarters of the accidents which happen are caused by personal errors and deficiencies, the greater number of the measures adopted and the institutions working to prevent accidents must make a direct appeal to man and guide and train him to be prudent and act in a rational manner. This pedagogic attitude must not be too obvious, because it is difficult to exercise influence on people in that manner.

On the whole, then, the task of preventing accidents which by its very nature belongs to the *training and instruction* of the people, must be carried out, as far as possible, in personal contact with those exposed to danger or accident, for it is only in this way that the individual can be made to understand the danger, and to come out of his reserve and interest himself in the efforts that are being made by other people. Nothing is likelier to arouse interest than a pictures which stimulates thought, and of all the pictures, the moving pictures are by their nature the best for this purpose, since they show us real things in their life process; and when we add the talking film to the picture, we have almost a hundred per cent reproduction of reality.

It is obvious, from the above considerations, that the film is a particularly valuable

aid for rendering instruction and training efficacious. As this *mode of influencing man* must correspond to his character (mentality, education, vocational culture, etc), and must therefore be varied, so the film must also present various forms for the prevention of accidents. We must therefore first ascertain the advantages or disadvantages of this or that cinematographic form under special aspects, and also in connection with Austrian conditions.

* * *

The educational film, which has come to play an important part as a means of popular education, since it gives excellent support to a lecturer's words, cannot be used just by itself as a film for the prevention of accidents. An uninterrupted series of accidents would end by becoming dull and tiring and boring. The simple educational film dealing with the prevention of accidents, is very rarely of any special interest, and instruction given by this means has therefore, very little probability of succeeding except in the form of very short films, in which these groups of accidents are gathered together. This kind of educational film brings us to the second group.

The Film on Production Processes. — The production process, as such, presents a series of interesting details; the various stages of it form a sort of pattern that makes boredom impossible when observing it. The disadvantage of this cinema form consists in

its uniformity. The film which shows only a certain production will undoubtedly be followed with interest by the workmen of that particular manufacturing branch, but not by those of another. Films of this kind are therefore condemned by their very nature to have but relatively few projections, which seems to make their use a doubtful advantage, since a large number of projections are needed to pay for the expense of a film. A film showing traffic danger is an exception to this rule, and in addition, such films are always interesting on account of the different aspects of traffic, apart from the dangers, and sometimes even, at moments, amusing. They also form a sort of stepping-stone to the next category, the —

The Film with a Story. — This is characterized by a continuous cinematographic action, and for that reason arouses interest even in publics of different mentalities, so that it can be made to illustrate accidents of different kinds, under able management. The disadvantages of this form lie in the fact that the action distracts the mind from the main object, namely, the accidents and how to prevent them, and that the variety and wealth of scenes presented may cause a certain confusion in the spectator's mind if the action is not planned very systematically, that is to say, it must be so planned that the plot is invisibly accompanied by an action illustrating the prevention of accident. It is important, therefore, that films with plots dealing with the prevention of accidents should not be too long, or that they should at any rate be divided into several parts, each of which is independent.

* * *

Summing up, therefore, we may say : each of the forms of silent film has its special justification, and the choice of one or the other cinematographic form depends on the aims and use for which it is intended. For primary and general instruction, the film with a plot is the most suitable, while for the special instruction which must be given later

on the educational film or the film on production processes should be shown. This explanation would not be complete without mention of the fact that, at the present day, special use should be made of the sound film for instructive purposes concerned with the prevention of accidents. As we have little experience in this field, especially in Austria, the possibilities of the sound film can be utilized only in the course of time.

The First Austrian Films on Accidents. The film can be made use of in the prevention of accidents only when there is a clear understanding of the measures to be taken for the prevention of accidents, and the *possibilities of influencing the individual on the other.*

Up to 1919, everything connected with the prevention of accidents, in Austria, was left to the agents of State control, namely, factory inspectors, and it rarely happened that there was any attempt to complete this State control based on the laws in force. When there was, it was due to the private initiative of some employer with advanced ideas. It was, however, recognized even at that time that legal prevention of accidents was not sufficient of itself, and the first step made was the forming the "Social Technique Society", the members of which were the representatives of the authorities, employers, employes and workmen ; the object of the Society being to spread the knowledge and rules of social technique among works.

This Society, under the control of the Central Inspectorship of Industry, with Herr Tauss C. E. at its head, produced two films in 1920 which received general approbation in technical circles. The State Bureau for the Cinema (Photographic and Cinematographic Service of the Ministry of Instruction) possesses the positive and negative of a film which dates from this epoch. It deals mainly with *accidents during transport and their prevention*, and concerns the minor industries, especially the chemico-technical industries.

* * *

A second film on the prevention of accidents owes its existence to a particular event, namely, the International Exhibition of Hygiene organized at Vienna from May to October; it was an instructive film on the prevention of accidents, with special reference to accidents in the chemical industry.

The picture intended to be shown to journalists consisted of a prologue and an epilogue, and the scenario had accident prevention background. This film represented an undoubtedly efficacious means of suggestion for those times, because, apart from its photographic perfection and its plot, it was also eminently suited to the mentality of the worker. It shows the battle-field of labour in the *prologue*, describes its dangers, and urges the spectator to the utmost prudence. The *epilogue* shows, perhaps a little too much in detail, that the best way for the worker to spend his free time is to look after his hygiene, walk in the parks, work in the garden, in a word, spend his leisure in the open air, keeping himself free of the vice of alcoholism.

This film, which was dedicated to the workers employed in the direction of the *Austrian Union of Chemical Industry Workers*, is about 1,450 metres long, and was produced under the direction of Louis Moorw; camera operator Karl Kurzmayer. It was projected 100 times in different institutions of popular culture, and especially on the occasion of Syndical Conferences, when it could be shown to about 40,000 spectators.

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Two more films were produced, on the occasion of an exhibition organized in 1926 by the Austrian Corporation of the Motor Car Industry, namely the first Exhibition for Safe Traffic Conditions. They were called "*Avoid Accidents!*", produced by the *Tramway Company of the Commune of Vienna*, and "*Viennese Traffic*", produced by the Direction of the State Police. Both of these films can to some extent be called

production process films, because they fix the production process of traffic in special pictures which are more particularly representative of Viennese traffic. Both describe the dangers of metropolitan traffic, show how one should and should not behave in the street, and how to use means of locomotion.

The film "*Avoid Accidents!*" is 600 metres long. The Tramway Company of Vienna supplied the subject and the shooting was done by the Company for the Production and Renting of "*Allianz*" Films. It shows the dangers of traffic in big towns, the right and wrong way to behave in the street, and the use of the tram. The film was shown at the Exhibition for Safe Traffic Conditions, and also in Viennese cinemas in the spring of 1928, in the Palace of the Fair when the "*Woman and Child*" Exhibition was held, and many times also at the *Urania*.

"*Viennese Traffic*" is in two acts, and is 648 metres long altogether. It was made by Karl Köfinger C. E., in collaboration with the Central Inspectorship of the Municipal Police and the Traffic Office of Police Headquarters. The scenes show the errors made by drivers and foot passengers.

Austrian Films for the Prevention of Accidents. All the accident preventing films of which we have spoke so far

were prepared for some special event, and then, as they happened to be in existence, were used under other circumstances. But we cannot speak of them as forming a *systematic cinematograph propaganda* for the prevention of accidents. This propaganda began to gain ground later, however, and to develop systematically and continuously. In November 1926, the chief organization for this purpose was founded, namely, the Central Austrian Bureau for the Prevention of Accidents, which comprises members of all the sections of society interested, the authorities and employers' organizations on the one side, and the workers and also the accident insurance companies on the other.

This central organization of all those inter-

ested in the prevention of accidents in Austria undertook, in 1928, to produce a film for the purpose of completing the *educational work* which had been carried out up to that period, mainly by means of film propaganda. About 2,500 factories and workshops, with a total of 180,000 workers, had been aroused to an interest in the problem of preventing accidents and persuaded to help in the work. The problem to be faced now was that of intensifying the already existing interest in the subject, and also carrying out a work of persuasion, in a new form, in those circles which were still outside the efforts being made to prevent accidents.

Propaganda and Instruction Films.

At this stage of the Austrian accident prevention movement, it was felt that the main thing was to carry out propaganda on the necessity of self-protection. To this end, it was necessary to employ methods which do not in any way presuppose special qualities in the individual methods, that is to say, which enter into the sphere of already existing interests.

It is a known fact that the film is particularly adapted for arousing general interest and inciting the spectators to collaborate when necessary. This is the case, however, only when the film is suitable for projecting before a public of different mentalities, that is to say, suitable not merely for *men employed in a workshop*, or for *town dwellers*, or for *peasants*; it must contain elements that would interest all these groups. By this we mean that it must have a series of scenes interesting each particular group, and at the same time be of interest to all the spectators.

In this connection, and as regards Austria, the following facts must be kept in mind:

(1) In relation to popular education and especially that of adults, the fact that the *Austrian* is influenced only in a special way, namely, by a mixture of sentiment and spontaneous reflection, not by *compulsion* or *rule*;

(2) that, generally, speaking, the *Austrian* rejects anything which is not beautiful, anything that is intentionally pedagogic and *doctrinal*, whereas he is attracted by beauty and things which are presented to him agreeably. The latter is therefore the only way to win him over to an idea, and to persuade him to help in its realization.

The first thing to do before starting to work was to decide whether to produce an *instructive film* or a *film with a plot*. If the Central Austrian Bureau for the Prevention of Accidents, decided on the film with a plot, although experiments in this line had already been made and other countries preferred the instructive film, it was for the following reasons: (1) it responds perfectly to Austrian mentality to be instructed in a *pleasant and not pedantic* way, (2) the film should be suitable for projecting in a working environment (corporate or workshop meetings) together with an illustrative lecture, and *also in public cinemas* before a public composed of different working and social classes; and it should not merely arouse general interest, but should also induce the public to co-operate.

These two almost diametrically opposed requirements can be satisfied only by a film with a story, because this type has a continuous action which is certain to secure the attention of all classes.

1. — "*The Danger that Lies in Ambush*".

Having decided this main question, a suitable subject had to be chosen, and the one chosen from a large number of subjects examined gave a vital picture of the working world, and therefore seemed likely to fulfil all requirements. It would not only interest all classes, but would allow of the *insertion, in a genuine cinematograph story, of beautiful, interesting pictures of the workshop, the street and the home*; and it also allowed of the insertion, in a perfectly natural way and at the proper moment, of facts connected with the prevention of accidents.

The first Austrian film on the prevention of accidents which was produced on these lines, "*The Danger that Lies in Ambush*",

may be described as a *dramatic film from the cinematographic action point of view*, and as a *pleasantly instructive film from the prevention of accidents point of view*. It does not deal with the special problems of protection against accident, but is restricted to the general aspect of the subject. It therefore offers *something of interest to every spectator, and does not bore or tire anyone*, and this constitutes its special value. But it is efficacious also in other ways. It is so constructed that it can be shown as a whole or in parts, so that *parts of it many be given as appendices to a programme*, before or after the chief item, like the sporting events, for instance, in the scheme of an *ordinary cinema show*.

All these things together are probably the reason why the film met with such great success everywhere. Among others, the *International Labour Office of Geneva* writes: "... you have the best film in existence on the cause of accidents"; the *Central Swiss Office of Hygiene, Zurich*: "This may be defined as the best film we have yet in this field..."; the *Social Museum of Munich*: "The idea of the psychological prevention of accidents is understood with extraordinary subtlety and worked out magnificently, both from the photographic and the stage management point of view"; the *Austrian Museum of Public Health*: "This fine film had a great success everywhere and formed one of the attractions of the Exhibition"; the *Chamber of Labour and Employment of Innsbruck*: "It may be said without exaggeration that the projection of this film is a great success".

2. — "From Midnight to Midnight".

The interest displayed in the film "The Danger in Ambush" induced the Central Bureau for the Prevention of Accidents to produce another *film with a story* on the same subject, so as to continue the educational work begun by the first one. The second film was to be in the main a continuation of the first as regards the prevention of accidents and also in its construction, the lines of which were already laid down.

Whereas the first film having to prepare

the ground, dealt with the prevention of accidents in a general way, the task of the second was to sow the seeds of a future growth on the ground thus prepared. The *second film had therefore to be of a more special character*, and to deal more or less thoroughly with various groups of questions; but all the same it had to be kept on sufficiently general lines to be shown successfully before a large public.

The first act of this film, "From Midnight to Midnight," with the sub-title "Films on the dangers of daily life", gives an *introduction to the prevention of accidents* and shows the necessity of these measures. It deals therefore mainly with accidents at home and in the street rather than in the factory. In the second act, the *ways and means of avoiding accidents* are illustrated, showing diagrams and preventive measures, and the steps taken by the Central Bureau for the Prevention of Accidents. In the third act, the *activities of the Inspectorship of Labour* are described, and we are shown the duties of employers and workmen in the matter of preventing accidents. The fourth act gives us an elaboration of the instruction abundantly imparted in the first film. In the fifth act, we are shown convincing demonstrations of systems for curing accident cases. In the sixth act we are shown the necessity and practice of *first aid and its organization*.

The film, shows an ordinary working day, just like any other, and speaks of the dangers of life in the factory, the street and the home, pointing out that *most of the accidents that happen are the result of inattention and ignorance*, and are caused by the *hurry* of these times and the *carelessness due to habit*.

The lack of proper safety measures is not the least cause of accidents. But the greater number of these could be avoided if employers, workmen and employés, private persons, housewives and children, in fact, all members of the community were convinced of their respective duties to society and were to act *with care and precaution and prudence everywhere and in every circumstances*, and if at every moment they were conscious

of being called upon to carry out the duty of collaborating sincerely in the great work of public safety.

* * *

Both these films were produced by order of the Central Bureau for the Prevention of Accidents.

Both were stage-managed by Robert Reich, while their general direction was entrusted to Viktor Hendrych. Among the

performers in both films were genuine workmen and members of the public, as well as actors and actresses, and the photographs were taken in factories and in the street, as well as in film studios.

* * *

The following tables clearly show the importance of the educational work done by these two films.

GENERAL CINEMATOGRAPHIC PROPAGANDA.

Total number of projections.

	1928	1929	1930	1931	1932	July 1933	Total
Where given in cinemas :							
“ The Danger in Ambush ” . .	71	128	58	9	34	2	302
“ From Midnight to Midnight ”	—	—	—	121	99	85	305
Total	71	128	58	130	133	87	607
Where shown in popular culture institution :							
“ The Danger in Ambush ” . .	57	169	247	113	42	179	807
“ From Midnight to Midnight ”	—	—	—	111	147	189	447
Total	57	169	247	224	189	368	1,254
In factories and trade meetings :							
“ The Danger in Ambush ” . .	50	97	24	12	19	230	432
“ From Midnight to Midnight ”	—	—	—	23	30	85	138
Total	50	97	24	35	49	315	570
Grand Total	178	394	329	389	371	770	2,431

Number of Spectators and Lectures.

	1928	1929	1930	1931	1932	July 1933	Total
Spectators' film :							
“ The Danger in Ambush ” . .	48,274	75,180	76,228	19,178	13,053	44,368	276,281
“ From Midnight to Midnight ”	—	—	—	51,794	41,539	52,615	145,948
Total	48,274	75,180	76,228	70,972	54,592	96,983	422,229
Lectures :							
“ The Danger in Ambush ” . .	39	106	113	75	60	320	713
“ From Midnight to Midnight ”	—	—	—	101	160	253	514
Total	39	106	113	176	220	573	1,227

b) PROPAGANDA WITH THE REDUCED SIZE FILM ONLY.

As soon as the small size film had been introduced into Austria, it was made use of to spread the projection of accident prevention films to a large public, and these projec-

tions can now be given in *public places and meeting places* when other gatherings are being conducted as a rule, that is to say, assemblies and meetings. As the following table shows, an important work of education has been carried on in this way.

Number of Projections and of Spectators.

	1931	1932	July 1933	Total
Projections :				
" The Danger in Ambush " . .	20	50	394	464
" From Midnight to Midnight " . .	77	128	256	461
Total	97	178	650	925
Spectators :				
" The Danger in Ambush " . .	1,528	4,967	41,248	47,743
" From Midnight to Midnight " . .	8,820	15,324	31,023	55,167
Total	10,348	20,291	72,271	102,910

It must also be noted that, by the aid of the small size film, a considerable number of *projections were made in schools*, etc., not only in Vienna and the principal federal towns, but also in smaller centres. These projections were given twice, in each case to *school children and their parents*, the one show coming soon after the other, so that it is more than probable that children and parents talked them over together at home.

We must not forget, either, that these films were lent also on the occasion of Exhibitions, in the halls of the Exhibitions themselves, so that hundreds of thousands of persons were interested in them.

In conclusion, we may say that by means of the two Austrian films for the prevention of accidents, " The Danger in Ambush " and " From Midnight to Midnight ", a *really widespread propaganda* has been carried out on the subject of self-protection, and also that, these films being so prepared that they serve not only for propaganda but also for educational purposes. Indeed, it frequently happened that this was the only way by which the ground could be prepared for an eventual instructive campaign for the pre-

vention of accidents ; a fact that should be kept in mind.

Educational Films and Instructive Films. Little by little as the different measures for preventing accidents assumed concreter form and especially when the necessity of propaganda by means of the film was recognised, it seemed advisable to produce educational films dealing with special questions and intended for special branches ; that is to say, real educational and pedagogic films. Some films of this kind have already been produced and others are being prepared.

The film " Autogenous Welding ", which was produced by the Austrian Acetylene Association, deals with the entire subject of welding, showing in a very impressive way the dangers connected with this process, and also how to avoid their occurrence in well chosen photographs and cinematographic pictures. Each phase of the work is presented with great care and ability, and the worker's movements are shown in a way that is often tremendously impressive.

The film is divided into two main parts of equal length, the first of which shows the

general foundations of autogenous welding while the second shows more particularly the practical applications of the oxy-acetylene process and especially the measures to be taken to prevent accidents. In the composition of the cinematographic work, great care was taken to keep the interest of the spectator alive throughout the entire projection by means of lively, attractive and sometimes stirring scenes, fade-outs, tricks and also short and well distributed remarks. This combination of qualities makes the film particularly suitable for instruction and propaganda work. It is 900 metres long altogether. Herr Wasshuber C. E. was responsible for the scenario, and stage management, and Herr Köfinger C. E. for the photography. The film was projected for the first time on the occasion of the Welding Conference of the V. D. I., and afterwards in all Technical Schools and Halls of Popular Culture in Austria, as well as for manufacturing corporations, when it was invariably accompanied by a lecture. It serves mainly for training purposes today. The amount of interest that was everywhere displayed in the film may be judged from the fact that copies of it have been sold not only in the countries on the borders of Austria, but also to those on the other side of the ocean.

The *Institute for Industrial Improvement*, of the Viennese Chamber of Commerce and Industry proposes to bring out an instructive film on "The Oxy-acetylene Working of Metal", the fifth part of which, "Technique Welding of Materials of Cylindrical Construction", was already finished in 1933. This part deals with flat and angle welding, and is about, 1,000 metres long; the scenario and the welding technique were supervised by Herr Hans Malhardt C. E., while Herr Teufelger C. E. looked after the general direction and execution.

The intention is to deal with the whole field of the autogenous welding of metal in the form of an instructive film. The projections will be made from lantern slides (diagrams, views, etc.) and films with

short dissertations. The single phases of the process of modern flat welding are shown, one after another, in their effects on the line of welding. The single data were supplied by the results of numerous investigations into the most suitable conditions for working at flat welding, so that the results of the latest researches in this field are shown. This makes it possible to follow the processes of the operation much better than can be done at the welding bench, so that this film can be used instead of a practical demonstration or a theoretical lecture.

The *Association for the Prevention of Farming Accidents*, which is an association of all the Austrian farm labourers' insurance societies, also intends to bring out a film on the prevention of accidents in this branch of work, in the combined form of an educational and story film. The story is quite ready, but funds are lacking for the production of the film.

The Central Bureau for the Prevention of Accidents proposes to produce two short educational films on two special branches, in which the most frequent and serious dangers of each of these industrial branches are illustrated in such a way as to serve for special instructive lectures. These lectures will be included in the programme of syndical and corporative conferences and will also be given on the occasion of collective visits of groups of workmen to the new section of the Technical Museum.

Prospects.

It is obvious from the above that the film is largely adopted in Austria as a means of propaganda for the prevention of accidents during work and also of general accidents, and that it represents an important future factor in the work of training and instruction.

To this end the object is not to keep solely to the simple educational film, but to make use also of the latest cinematograph advance namely, the *sound film*.

The Austrian Central Bureau for the Prevention of Accidents, which, as we have already said, is always trying to attract the

attention of new classes of the population to its ideas of safety and to that end makes use of all modern means of propaganda, has already decided to bring out some sound films on this subject, in the form of short films to be projected as *appendices* to the programmes of public cinemas. These films will have the same scope as the other pictures referred to, namely, to call the atten-

tion of the still indifferent spectator or those whose interest has grown somewhat cold, to this subject.

The work of propaganda for the prevention of accidents by means of the film is on the way to profit by a new means that has already given proof of great utility in securing increased safety in the workshop, the street and in the home.

THE USE OF MOTION PICTURES IN ADULT TRADE EXTENSION CLASSES

Report by the Frank Wiggins Trade Evening School of Los Angeles.

OUR FIRST FILM. — In the trade extension classes of the evening school we face the problem of increasing the effectiveness of teaching trade techniques to those who have had some experience in the trade they are studying. This type of adult learner is anxious to know worth while things about his trade, but is extremely critical of the teacher and of teaching methods. He has sufficient experience to give him an insight into what constitutes correct technique, even if he cannot reproduce that degree of skill for himself.

The maturity of the pupils and the fact that they want the usable parts of their training as rapidly as possible have led us to minimize the amount of theoretical instruction which is often a necessary background for success in a trade. The motion picture has been a partial solution to this problem, for by its use the principles may be demonstrated rapidly, and their direct application to the trade operations indicated.

The meaning of a well prepared moving picture is grasped by all, while a verbal discussion produces reactions varying with the intelligence, training and experience of the various members of the class. This is by no means to suggest that the motion picture can ever supplant the personal contact with a competent teacher. We are convinced though that the motion picture can be successfully used to shorten the time and increase the efficiency of technical instruction in the trades.

For example: a class of automobile mechanics studying wheel alignment required from three to four weeks to cover the geometrical and mechanical principles, underlying the proper adjustment of the front axle and wheels of an automobile, in order to produce the camber, caster, toe-in, etc. for minimum tire wear and easy steering.

It appeared that a motion picture might present the ideas in a more understandable way. So the instructor with the assistance of the vice-principal prepared a script presenting step by step each type of adjustment, with a diagram or model to illustrate the theory. In each case theory was followed by views showing practical ways of measuring, making and checking the adjustment.

Then with the cooperation of members of a class that was just finishing the course, we shot the scenes indicated. The rushes were viewed by the class, and received their humorous but critical and enlightening comment. Some additional scenes were added, and after editing and titling, the film was again shown to the group and suggestions made for further improvement.

It was obvious that all concerned enjoyed the making of the picture, and from their collective efforts details of the processes were observed that had not been previously noted. The instructor was inspired by new viewpoints on the technical problems and in using the film with later classes was able to reduce the time for related technical instruction by half. At the same time he has noted evidence that the processes are better understood than before.

This process of making a teaching film has been outlined somewhat in detail because it has become our method of attacking the problem of obtaining films which really fit the needs of teacher and class. Further statements regarding it will be found in the following outline.

1. SIZE OF FILM. — We have selected the 16-mm width because it projects a clear picture large enough for any of our classrooms. This, of course, is essential and we were not satisfied with sizes smaller

than 16-mm. The small, light-weight reels and projector for the 16-mm film make them so easy to handle that teachers, who have objected to the use of 35-mm film because of the difficulty, have gladly used the smaller film. The 16-mm films is much more economical because of lower first cost, rentals and transportation charges.

2. SILENT FILM has been used because our experience indicates that for technical instruction sound effects usually distract attention from the main subject. Also in the present state of development of sound equipment the sound effects are difficult to satisfactorily prepare and project. Printed titles are likely to be better understood than the spoken word.

3. BLACK AND WHITE films have been used exclusively so far, because in the present state of perfection we do not regard the reproduction of colors as sufficiently accurate to justify the additional expense. We have some art subjects. Costume Design, Cosmetology, etc. where colors would add greatly to the effectiveness of the films when they can be reproduced satisfactorily.

4. EXHIBITING. — Our instructions for the use of films suggest that the instructor discuss the subject fully before showing the film so that pupils understand the main points to be considered. Then show the film, stopping at any points where additional discussion will help. After seeing the film, review the subject with additional explanation. Require each pupil to write an outline or digest of the material covered.

5. SOURCES. — Most of the films we use come from general distribution sources such as: Y. M. C. A., U. S. Bureau of Mines, National Film Library, University of California, General Electric Company, and others.

From a teaching view-point the quality of these films varies widely. Many are excellent and well adapted to class exhibition, presenting manufacturing and industrial processes more clearly than a visit to the plant would do. Others are composed so completely from an advertising or entertainment angle that the teaching value is slight.

Since we have been unable to obtain enough satisfactory films we have been making films to suit our special needs. This is a slow process but as time goes on we are building up a library of films which fit the instruction program and are available when needed.

In general the films which we make are intended to present the related technical aspects of the subject. While industrial processes become obsolete and are replaced by more effective methods, the scientific principles remain much the same. The same is true of films, representing fundamental principles which need only slight revision as the years pass.

6. COMPARISON WITH STILL PICTURES. — We have found moving pictures superior to slides in all but a few instances, such as Costume Design where the class sketched period costumes shown on the screen; or Linotype Mechanism. These uses of still pictures appear to supplement rather than replace the motion picture.

7. SUBJECTS WHERE FILMS CAN BE USED. — We have found motion pictures helpful in the following classes:

Aeronautics, ground courses, meteorology, navigation, theory.

Airplane mechanics, types of construction, methods of manufacture.

Apartment house management, arrangements, methods, service.

Automobile mechanics and electrics, science, developments, methods.

Cake decoration, types, details, variations, effects.

Cosmetology, physiology of skin, types of hair dressing, techniques.

Costume design, period costumes, details, factory methods.

Drafting-architectural, period architecture, details, materials.

Drafting-mechanical, machine design, applications, mechanics.

Electricity, installation methods and types, theory.

Fashion illustration, advertising psychology, arrangement.

Plumbing, methods of manufacture, type installations, hygiene.

Printing, manufacture of paper and ink, artistic arrangement.

Radio service, science, types of installation.

Steam plant operation, science, techniques types of equipment.

Telephone switchboard operation, technique, types of service.

Welding-gas and arc, science of metals, techniques, methods.

8. COLLABORATION OF TEACHERS. — The making of a film for teaching purposes is a highly technical procedure and requires the cooperation of a number of people experienced in different lines.

(1) The sequences and subject matter must represent good trade practice.

(2) Psychologically the arrangement must be plausible and carry the desired message. One of the beauties of the motion picture is that it carries a number of incidental connotations which are absorbed unconsciously by those who see it.

(3) All details of background should represent industrial conditions. In this, as in all things, the "infinite capacity for taking pains" is essential for successful films.

(4) The photography must be adequate to the task of putting on the screen a clear picture that will make the important items stand out boldly. In this type of picture sharp, contrasted effects are generally desired. Titles should be brief, simple, and direct. Where technical words must be used they should be explained.

Since these films are made to fit into a definite teaching program, they should be planned with the teacher of the class. Where more than one teacher is concerned or is familiar with the operations involved, a conference is desirable to outline the subject matter.

Our procedure in this case is for the vice principal as director to call the conference mentioned, after which he prepares an outline and gives a copy to each teacher, asking for further additions and revision. Another conference is held about a week later and important details agreed upon. Then a working script is prepared with as much detail as possible, copies of which go to the teachers for further adjustment. When satisfactory to all, the necessary properties are prepared and shooting begun. At the same time our drafting classes prepare the drawings or diagrams required.

This procedure takes time and usually all concerned spend many hours outside of school time to make the film complete. Much of the shooting is done in school time when classes are in session to furnish the "actors" in the scenes. Little rehearsing is needed since operators are selected who are skilled in the kind of work to be shown. We have found some teachers hesitant at first to venture on a novel project like this, but by the time the script is ready they are enthusiastically doing their part.

Most of our teachers are skilled craftsmen with years of experience in the trade they teach. Being primarily craftsmen they do not fall so readily into the rut sometimes ascribed to academic teachers of long standing. We have found, however, that the production and exhibition of motion pictures inspires the teacher to a better organization of subject matter, and in general, a fresher viewpoint in his ideas of the relation of the school to industry.

9. COMPARISON WITH OTHER TEACHING AIDS. — Our classes often visit plants where phases of the class study are available for observation. It has been found that these visits can be made more instructive by accompanying them with motion pictures which describe similar processes. Thus a broader view of the subject is obtained than is possible from a short visit.

The comment has been made that when a class is learning a process involving activities which the members can practice for themselves it seems foolish to show pictures of the processes. However, judging from the comments of members of our classes, there is much to be learned by watching a good close-up of an expert doing the same kind of work. This is specially true, of course, in watching rapid action which can be analyzed in slow motion.

CINEMATOGRAPHY IN TEACHING TRADES

Report of the "Autonomous Fascist Federation of Italian Artisans".

What are the possibilities and evolutions of trade teaching in regard to:

- (a) the silent film;
- (b) the sound and talking film;
- (c) the film as compared with other didactic aids;
- (d) verbal and written teaching;
- (e) complementary cinematographic text books.

(a) SILENT FILM. — 1) As a subsidiary and supplementary means in the teaching of trades, the silent films is sure to make great strides since its easier execution and lower cost (taking, printing and projection of photographs) make it a much easier matter to popularize these films.

(2) The silent film for the teaching of a trade

should be divided into the following three different categories :

- (a) history of the trade ;
- (b) materials, systems of application and demonstration of the execution of a piece of work from beginning to end ;
- (c) the various phases of the work, with abundant details in regard to the first steps, especially in those trades dealing with works of small size. Each detail should be preceded by a preliminary lecture giving a theoretical illustration of the action, and should be followed by a concluding lecture on the action carried out.

(b) SOUND AND TALKING FILM. — The sound and talking film may be greatly superior to the silent film, apart from its cost, for the following reasons :

(a) in the " history of the trade " film, words are of great importance, because by their means a detailed description can proceed step by step with the projection ; which procedure is impossible with silent films, where the explanations can only be interpolated ;

(b) many trades have special features, as regards the sounds produced by the instruments used and the materials employed. These sounds have their importance, since they can give an exact impression of the proper execution of the work, or otherwise. When a file bites badly, we shall have a disagreeable sound, for instance ; and the same thing occurs when a drill is not sufficiently oiled, or when the blade of a plane is not sharp enough, or when two or more men are beating on iron and do not keep time, and so on ;

(c) words accompanying the action have great superiority over the written words following a silent film, because, among other things, they give the proper pronunciation of the technical terms.

(c) THE FILM IN RELATION TO OTHER DIDACTIC AIDS. — With regard to the subsidiary part of the

teaching of a trade, namely, synoptic pictures collections of models, plastic images, lantern slides, es, etc., cinematography could exercise a wider and more positive function, since :

(a) by its means we can show the details or section of a motor, a piece of furniture, a canoe or other object in all its parts, even the most minute, which would be impossible even with a long theoretical series of synoptic pictures ;

(b) the cinematograph can serve as auxiliary to models, but cannot take their place. In the field of living models, however, it has great advantages, because it can collect a continuous series of every phase of their muscular movements, which can be shown with great efficacy, especially if they are taken with the slow motion process ;

(c) plastic images and lantern slides may be replaced with advantage by the cinematograph, for the panoramic and gradual projection of a stationary thing gives a much better idea of it than a plastic image or a lantern slide. There is also the fact that we have unflammable films now, so that a projection may be stopped and made fixed at any moment.

(d) THE FILM IN RELATION TO VERBAL AND WRITTEN TEACHING. — Verbal and written teaching in trades is theoretical or historical, and the film can therefore be of great aid to teachers for single demonstrations and for illustrating the description designs or lectures on the history of the trade.

(e) COMPLEMENTARY CINEGRAPHIC TEXT BOOKS. —

If cinematographic text books are compiled on proper technical criteria and properly set up, they can be of great use in the teaching of a trade. For instance, successions of photographs illustrating works or facts explained in the text could be inserted between the pages. All the tools connected with a trade can be illustrated by photographs and thus form a kind of illustrated tool dictionary.

CINEMA AND ACCIDENTS

By Engineer VITALIANO COLOMBO.

Among the technical, economic and social problems in the solution of which the cinema can prove useful we must not forget the campaign against accidents.

The matter is far from being unimportant. Safety during work is without doubt directly and closely connected with securing the physical integrity of

the race. The phenomenon of accidents is so vast and important that, looked at merely from the physical point of view, the calculation of the damage wrought totals up to thousands of deaths, tens of thousands of accidents bringing permanent disability, and hundreds of thousands of cases of temporary disability. Looked at from the economic angle, the loss

amounts in one way and another to millions, if not one or more milliards. All this is repeated by year and therefore, without having recourse to any special statistics, it is evident that the campaign against the waste of accidents is a holy war waged for the defence of the family and the national interests, a battle in which full use of all helpful means should be made.

Many people commit the mistake of considering an accident in the course of work as the natural epilogue to a conflict between man and machine, between the worker and his tools and implements of labour. Still more people consider this conflict unavoidable and inevitable, as if the implements of labour were autonomous beings possessed of a blind brutality or a sense of hostility.

The workman's accident is, on the contrary, we may say, in 90 per cent of cases a psychological fact, that is the conclusion of a state of mind which shows an insufficiency of presence of mind and attention in respect to the surroundings and manifestations of the work being done.

The point would be well worth developing to greater length than is possible in the present note. At the same time, we should remember that modern technique would not have a place worthy of its fame in production if the mechanical forms in which it is manifested were insufficiently provided with protective means for workmen. That there is still a degree of danger cannot be denied, and it differs from case to case. Some parts of machines in rapid automatic movement are more delicate than others, but the danger is liable to increase in measure with an inaccurate gauging of the danger by the worker. It is the moment's inattention and carelessness which allows a man to slip on a wet floor, which gets a man's arm caught in a running pulley or belt, which lets a man drop a lighted match near the petrol can, and causes workmen to fall from insecure scaffolding.

Must we lay the fault on the workman then?

Must we presume that he commits a grave imprudence when in the course of welding he leaves off his protecting glasses or gloves for a minute because prolonged work makes him find them if not superfluous, at least in the way?

It is not of reproofs for workers that we want to speak. Indeed attenuating circumstances can easily be found for workers under these conditions. Basing our statement on numerous studies by psychologists and specialized bodies, we must point out that all the mechanical devices for safety and means of protection are worth nothing if those for whom they are intended do not use them in the proper way.

More and more automatic protection devices are

being used, among which we may instance the marvel of the photo-electric cell which arrests the worker's arm if it is moved outside the safety zone. Automatic defence cannot do everything nor be general, consequently the workman must help himself with a tireless use of his attention. In other words, we must create a state of mind among workmen which makes them realize the gravity of accidents an individual and social danger, and we must educate the workers' capacity for collaborating in the campaign against accidents.

"Safety First" is a motto which follows one like an obsession when one visits American factories. The warning is repeated on every stairway, at every door, in each department, and beside all the various kinds of machines. It is repeated with an implacable uniformity. In all modern and rationalized establishments, all over the world the spirit of emulation in preventing accidents is kept alive by various means.

The cinema comes in as a particularly useful agent in this very matter of educating people to a state of mind which is against accidents during work. At the forthcoming Congress, all the various different forms and uses of the motion picture for technical and social defence purposes will be examined. Few fields, however offer a better opportunity for the use of the cinema than the section of accident prevention. Here the motion picture is educative in the full sense of the term. The question of education includes an improvement of technical capacity? We want to impress things on men's minds and on their moral qualities. The cinema is an active and dynamic vision of progress.

All this is true of the campaign against accidents to workmen, and can find its best interpreter in the motion picture.

The technical scientific film and the spectacular picture go well together in this field, the ironic and the dramatic, the dry and the emotional. When one or ten series of different films is produced with this object in view, they can claim the attention of every public in the world. Throughout the whole world lack of attention and an insufficient regard for danger is a source of disaster for human life, and throughout all the world the head of the family who is lost or injured leaves a serious legacy of misery and privations.

In this way motion pictures of this kind can usefully be exchanged between country and country, and with a careful and conscientious director, films of this type ought to have excellent probabilities of paying their way. Films dealing with workmen's accidents and the best means for avoiding them have

already been projected in leading cinema halls, and have proved successes from the educational point of view in the campaign against unnecessary accidents.

The subject is one which can be treated in section and in detail. One thing can be taught today, another tomorrow, thereby leading to a gradual penetration of the central notion into the minds of those for whom it is intended. Interesting stills or lantern slides can be used along these lines also, since they fit in very well with the more advanced technique of the motion picture for propaganda purposes.

Indeed the use of stills would seem to be a good way to organize a progressive spread of knowledge of accidents and their causes.

It would seem advisable that the Congress should express its opinion on this matter since all possible means should be weighed and considered when we are facing a phenomenon which affects the health and the financial conditions of people. It is a phenomenon which cannot be measured statistically by the damage it causes because in accidents, as is well known; in addition to the amount of the indemnity to be paid, there is the more or less unascertainable figure deriving from the damage which the accident causes to the working of the factory or workshop where it happens, and the effects, not the subject of compensation, of the accident considered in terms of the injured worker and his family.

THE CINEMA AND THE SCIENTIFIC STUDY OF WORK

(*Editor's Note*). The cinema has not been considered solely as a means of artistic, cultural or educational production. In its wider sections and uses it has been utilized for scientific researches almost of a mathematical character, even in their psychological import, to arrive at establishing the necessary elements which appear in the plan of work and to demonstrate if and in what measure and in what manner the worker's labour can be integrated, and rendered easier and more healthy.

The objects of these researches, which, it may be repeated, are strictly scientific are various and include:

- a study of the best means to render work organic and rational and calculated to give a larger output;

- a study of the rationalization of work not so much from the point of view of the quantitative or qualitative output, as to place the workman in a position to tire himself less (to work in a manner more suited and convenient for the particular type of labour he is accomplishing) and to obtain the same effect or even a superior effect to the normal one as a result of paying attention to the fundamental laws of the least effort and the maximum effect;

- a study of the worker's labour from the eurythmic and psychological points of view with the purpose of establishing that the movement or movements to be made in a given piece of work are the strictly necessary ones and those specifically indicated for that given piece of work, and not other superfluous, useless and dangerous movements constituting a loss of time and a waste of energy. The purpose is also to see that the workman presents

himself at his task technically fitted to carry it out, didactically equipped and accustomed to the special job;

- a study — by means of an examination of various types of work — of the most suitable and convenient means for determining that human labour shall be free of every anxiety of damage or injury (accident prevention assurance, etc.).

These are the essential objects to which many other secondary ones could be added, objects which require a schematic examination not in the order indicated but according to the development of the work from its origins (apprenticeship) right down to its practical development and evaluation.

I. THE TEACHING FILM. — The teaching film, in the department of work must be considered from a triple point of view according as it is intended to create factory hands, to choose specialists and to improve the worker's work.

The film which is intended to create factory hands must maintain its technical-didactic character, with all the necessary formulae and consequences which pictures of the kind are capable of offering. It should have as a basis, an exhibition of the various types of labour, both agricultural and industrial illustrated in an elementary fashion, and should be accessible to the various mentalities of the children and young people who will have an opportunity of seeing it. It must therefore maintain its explanatory and exhibitional character, excluding all complicated technical matter. The very first course of such teaching is not intended to instruct nor to specialize, but is intended only to set forth,

to demonstrate which are the various types of work, so that the students can become acquainted with them and unconsciously begin their own researches into what will prove to be their future activity. This does not mean creating factory staffs. It is but the first step in that direction which begins by outlining the *form*, the surroundings in which the work is to be done. The spectator is invited therefore to a first rudimentary work of selection, which will have in the future further developments.

This type of motion picture can well be used in all scholastic grades from the elementary classes to evening and rural schools and the early vocational guidance courses.

Going a step further forward, the student passes from the technical schools properly so called to the cultural and specialized training schools. The staffs or hands are already formed in embryo. A preliminary selection has been made automatically according as the child or young person has manifested his or her preferences and has chosen one course in preference to others. This fact does not preclude the possibility of the future workman returning to take up other different courses if the opportunity occurs, or when the spectator students understand as a result of experience that it is better to follow new and different paths of labour than to insist in pursuing roads unadapted to their psychology, tendencies and special aptitudes.

In any case, we are discussing future factory staffs which must still be chosen and definitely trained along special lines.

This second stage which might be called superior technical training creates the proper factory staffs, the specialized hands. The field and factory worker has already begun his task. The motion picture bound up with the necessities of oral and written teaching abandons its general character of an encyclopedia of work and takes on a more specific character with the purpose of showing those machines and objects which the student spectator has chosen deliberately and desires to see in operation. We are, however, still dealing with the formation of staffs which is proceeded with through specialized schools, and consequently by means of the particular specific kind of teaching whether filmed or written.

From purely scholastic teaching we arrive at type teaching as we have mentioned, which helps to differentiate the ordinary manual worker, the ordinary daily labourer from the skilled worker destined to carry out special operations. This becomes a first form of specialization. The worker and peasant have now a definite line and direction to follow.

They know what the life of labour can offer and what they can give in return. The workers come to take their places in the factories or in the fields.

In the factories, workshops and fields, that is in the various determined sectors of work, the workman and the peasant have a multitude of tasks to perform if they wish truly to be up to their own standard and fit for their work.

Whence comes the necessity for technical improvement. In addition to technical schools and trade-chasing schools, we can have schools in the work shops, in the fields and everywhere the worker's activity takes him. Such schools need not be considered as being created solely to assist the agricultural labourer and the industrial workman, but with the principal object of rendering the workman and agricultural labourer a hundred per cent useful citizen capable of rendering the best possible service to himself and his country so that he becomes a real constructive element in life.

The character of the first groups of schools can be gathered by noting the scholastic specializations: general teaching, specific teaching, first grade specialization all tending to create technical factory staffs. The character of the last group of schools is also clearly specified by the programme decided on by the schools. It is roughly meant to stress the importance of the work of the operative and the agricultural labourer.

We thus arrive by means of a continuous selection at what ought to be actually the adult's work, that is, the typical formation of a category of workers capable of filling the shifts in a factory.

What can the film do in this connection? We must use teaching films for which the ordinary principles of methodology are applicable. In no way is the human element, exemplified in the person of the teacher, to be excluded. He must continue to carry on his work of integration, of comment, of explanation and suggestion. Perhaps in this particular field more than any other, the educationist's work can be usefully employed in supplementing what the student learns on his own account from the film. Not only should the film be used for the teaching of apprentices, for vocational guidance, career-choosing, but other visual aids should be adopted in connection with the motion picture. Lantern slides, models, laboratories are necessary to allow the pupil to study in a practical fashion the filmed lesson and the teacher's verbal expansion of the same. It is in this second utilization of visual aids that the educator's intervention reveals itself as being very important and necessary.

II. PROPAGAND FILMS. — The propaganda film, in the field of scientific work, logically presupposes that the workman or peasant have already received some kind of specialized training of an elementary nature, which cannot yet be considered as giving proper qualifications.

The propaganda film can be addressed either to the public in general or the worker in particular. To the public because it becomes necessary to make it see and know what only very few know; work in its customary progress as it is carried on day by day in factories and fields. This type of propaganda is essential for the putting into due relief of work in general and the national work of each nation. All the nations, through the iron laws which govern their activity, must have their internal work properly and extensively valued and esteemed. In this essentially economic expression of will, the elements of the propaganda are to be found.

This propaganda can be carried on, as happens today, and of which America has given us the first typical examples, by ordinary advertising methods. It goes without saying that films of this kind must be exhibited in the simplest form in such a way as to be easily comprehensible to all classes of spectators. The effect to be aimed at is not so much to offer a too obvious and irritating kind of advertising as to offer in an indirect disguised way a picture which is capable of attracting the spectator on its own merits. The public is often rebellious to forms of advertising which seem imposed on them by force as it were.

But mere propaganda among the general public is not enough. It must also contemplate informing the worker of what is being done in other fields of work, so that the impression can be made that the work done by an individual or a given group of individuals cannot be an end to itself, but must be considered in relation with the labour which other individuals and other categories of workers are doing in the interests of the collectivity and for the advantage of the whole nation.

When a worker in the building trade sees on the screen the intense labour and the enthusiasm which the miner brings to his work, or the operative earning his living in blast furnaces forging bars of steel, or the movements of labour-saving machinery, he will understand that work is in itself and for itself a regular chain of interests and coordinations which cannot be broken or dealt with one at a time, because they are all connected with one definite aim.

From visions like this understanding is born, and what is even more necessary an appreciation of the nobility of work.

These are all forms of propaganda which are solidly and intimately connected with the inspiring principles of corporative life in all countries, in which the worker in the factories and the fields, just as the employer and the technician who directs the complex mass of operations, are all necessary, essential elements integrating the whole work without any possible antitheses between them.

III. ACCIDENT PREVENTION AND WORKMEN'S RELIEF FILMS. — These too are propaganda films. The purpose of the films is to let the workman know what are the dangers inherent in his trade or are caused by an improper and faulty estimate of the nature of the work he is doing. Such dangers are often due to an erroneous coordinization of effort or an incomplete respect for the regulations governing the daily work. All these factors can lead not only to a diminished output, but can cause those typical forms of injury which reduce or annul the working capacity of the operative and thus harm in his person, either wholly or in part, a working unit of the national economy.

The worker's relief and worker's accident prevention film is intended for three categories of persons, all in different degree interested in appreciating its content and suggestions. These categories are worker, technician and employer. It is also a picture, which on account of its general and specific functions, can usefully be shown to a non-specialized public for cultural purposes.

The workman utilizes it for the definite ends of his own work, derives suggestions from it for carrying out his tasks with a scrupulous, technical exactitude which will steer him clear of all danger. He will learn from it how each movement of his hand-work or machine manipulation should be accomplished, what he should do when a breakdown in the machinery occurs, so as to avoid danger and to prevent an injury to the machinery turning into a injury to persons. He will learn the utility of first aid and the necessity of monetary compensation for injured workmen, as well as how to deal with various cases that can crop up in the field of assurance, relief and help to the injured.

The technician finds in the films of this kind the precise illustration of the tasks and details of work which his subordinates must carry out. He can therefore exercise his functions of control and criticism along lines strictly in accordance with the exigencies of work.

The employer will perceive that one of the principal advantages of the insurance system is to exonerate him from economic responsibilities while

one of the advantages of the accident-prevention system is that of not reducing the working energies which he has made himself responsible of in his factory workshops or fields. At the same time, the insurance companies have all the employer's interest and more in developing forms of propaganda which can avoid or limit the necessity of heavy expenses for indemnities and compensation. This system, which is widely spread in American factories, leads at the same time to a reduction of accidents which is all to the advantage of the country socially and economically. It has also improved the output of the workers and benefited the insurance companies themselves.

Nor is this all. One can be an excellent worker in a given specific department and remain such ; one can be a perfect workman and yet not be aware of the technical and economic transformations which work develops ; one can be diligent and yet not have a notion of the principal elements which govern the rationalization of work (quantity and quality) for the sake of the work itself and diminished fatigue for the worker. One can be certain of one's own nerves and courage and yet not be convinced that from the psychological point of view, the work can be done according to strict requirements and that the nerves and courage can fail at a critical moment with all the consequences for injury and damage likely to result.

The cinema meets the situation here better than any theoretical studies can do, better than verbal advice or the instructions of an educationist or an expert, better than graphs, wall drawings or similar objects.

The film becomes therefore :

(a) A means of research which is preliminary to this scientific utilization. In this department, the screen remains in the strictly documentary field. As Jean Cocteau has well said, " Even when nothing is moving, the cinema registers the time that passes ". We may add that when the eye does not see, the cinema registers and observes. Details can escape the attention of the most attentive of experts. The cinema writes this detail on the screen, and offers it to the technician for his researches and future experiments. Dispensing him from regarding it with his intuitive faculties which are not possessed by everybody in equal measure, and can in some cases be quite imperfect. Jean Cocteau observes that by examining the pictures in a film one by one, we may decompose the movements of a workman, a machine, or a whole gang of workmen in cases where the naked eye could detect nothing definite.

M. Hymans finding it impossible to keep certain machines, the workings of which he wished to study, for more than 24 hours, had them filmed in action and was enabled to study their movements with the aid of collaborators, at his ease, and better than he could have done with a prolonged direct study.

It was also the cinema which enabled the Michelin Company to record the mysterious phenomena manifested by the " shimmy " of the front wheels of automobiles, and the study of the film allowed the cause of this disturbance to be detected and removed.

(b) *For the formation of a qualified staff.* — It is not a case of perfecting only the working staff with the object of obtaining a higher output both quantitatively and qualitatively. It is also necessary to produce men who, while remaining workers, become master workers, without at the same time invading the expert's domain. One can arrive at this by a process of selection. Thus in the building trade one finds artisan workers, workmen who can introduce grace and harmony into their work, workmen who are superior to the common bricklayer.

We have used the word harmony. And *harmony* means *rhythm*. It is precisely this — if one wants to find the aesthetic element in work — that differentiates workmen's qualifications. Rhythm is harmony, and as harmony it can come from colour, music, poetry. A musical composition without rhythm is only an artificial assemblage of sounds, just as poetry without rhythm is only versified prose. Colour or movement without rhythm is only a stain without life, or a succession of disordered gestures in a fractioning of various rhythms which do not unite to form a rhythm proper. The individual who rises up from the ranks of day labourer to be a qualified operative lifts himself out of the rhythmless sector of disorganized work to forms of labour possessing harmony and belonging to a superior conception.

The artisan class is the typical expression of the qualified workman, and this applies to all kinds of artisans from wood-carvers to glass workers and workers in precious stone.

To create qualifications for workmen is to elevate and enoble toil, and means contributing towards the creation of works of art.

The qualified workman can come into being not only through a process of selection but also through individual improvement. We must make our distinction clear here : there is improvement and improvement. There is the kind we have already spoken of which renders the workman perfect in his own particular limited field of action. This kind of improvement tends especially to use the worker's effort-

while gradually improving them. A steel worker or smith who hammers out his iron on the anvil can carry on his work either roughly or rhythmically with essential and harmonious gestures which give a character to the metal that issues from his hands. This is only an improvement of the first degree, and not second degree perfecting. We must give the workman an opportunity of realizing his best possibilities, those capacities of his which come almost within the domain of art, since they comprise a manifestation of the aesthetic sense and the sense of precision. And this is harmony in movement and gesture.

We now come to the question of specialization which is connected with forms of typical technique and which, while remaining in the domain of teaching, goes beyond the simple elementary paths of apprenticeship.

(c) *As instrument for the scientific study of work.* — It may seem strange, but it is nevertheless true that a rational system of work, necessarily if unconsciously, obeys the operation of rhythmic laws, since we must study movements by dividing them into fractions and breaking them up macro-movements, micro-movements and normal movements in order to eliminate unnecessary gestures and to enrich them with essential elements.

A study like this is the consequence of a series of scientific researches as well as a gradual improvement of the worker, whether the improvement remains within elementary limits or tends to produce qualifications.

Without wishing to repeat what has been said elsewhere, what are the bases for a rationalization of work? They include: the study of the work to be done, the study of the tools and machinery, the study of the movements to be made by the worker. These classes of studies combine with one another.

The two kinds are of a strictly technical order in the sense that they must be examined scientifically, and the workman is generally not in a position to undertake a scientific study. He can, on the other hand, bring his contribution of practical knowledge of his task.

Theory must remain the province of the technician, who is the only one to establish later on how theory and practice may be reconciled.

"The chain, for example, as callibration of time" says Jean Coutrot is a visible materialization of voluntary and abstract coordination of the principle of mechanization of the process of simplification of planning which governs every piece of work".

In a study on the Cinema and the Scientific Organization of work (Brochure of the I. I. E. C.

No. 19-1930) Jean Coutrot examines the problem under a particularly interesting aspect since he does not concern himself with the economic factor so much as the psychological factor which can induce the employer to rationalize his labour and plant.

The industrialist of today, in his daily work, is concerned less with earning large annual dividends for himself or his shareholders (Taylor has shown the comparative futility of profits which cannot be realized within a week) than with creation, the fashioning of his enterprise according to the idea of it which he has in his mind. The real joys of creation are no longer reserved to the artists, who, deliberately denying their work all moral, sentimental or historical significance, confine their endeavours to mere problems of form, colour or space, but to the industrialists, who, with the valuable but wayward aid of human ambitions and of material, financial and intellectual resources, are engaged in constructing organisms as impressive as they are delicate. Paul Claudel, with marvellous intuition, has realised the obscure but profound satisfaction of men who are absorbed into these organisms from the remotest countryside to work along with their equals under acknowledged leaders.

In modern industry everything is subordinated to a definite end, everything functions with miraculous order within the framework of a single task. Workmen, engineers, accountants, draughtsmen, travellers, interpreters, the publicity staff all have their essential duties to perform, and their work reacts immediately upon the whole organization, of which they never cease to be a vital part.

Who will deny that a community of this kind, irrespective of the sufferings and diminished importance which it may involve for each member, is in itself admirable? Has there ever been seen so harmonious a distribution of such vast stores of knowledge and of so many human forces and activities? Here men are united no longer by mere physical proximity, but by a mutual need, an organic necessity of undreamt of scope and complexity. And every worker is dimly aware of this. He is no longer alone; he feels himself necessary to the whole. He is making good among all his equals under competent leaders, and acts no longer in response to an arbitrary word of command, but under a direction and guidance which are indispensable. And that is why he will always choose to serve (I prefer to say "work") a machine rather than to dig the soil.

Towards this urge of the manager to create, and of his subordinates to assist in the creation, scientific management contributes the framework and the rules, just as prosody serves the poet's need of

expression. It is therefore important to bring home to all what is not generally realized, namely the inmost structure of industrial organisations, whereby the energy set loose by customers in the form of orders is gathered into a stream by the planning department, directed through channels to the different workshops and finally materializes in the form of manufactured goods.

When we seek to make this structure perceptible, we find that it consists of a pile of orders or service notes, detailed plans, customs or traditions of the staff, all elements a knowledge of which calls for considerable analytical effort and which are only known in their entirety to the head of the business, the sole onlooker. It would appear that the cinema, with its inexhaustible power of expounding, can alone communicate to others this general view from which the employer derives his supreme delight and his strongest inspiration.

A film prepared by the *Grodziec Collieries Association* (Dombrowa basin) in collaboration with the Polish National Committee on Scientific Management is a typical example of scientific management.

This is an extremely interesting film and proves that the methods of scientific management can be successfully applied not only to a workshop, but to work subject to such variable and all compelling external conditions as is work in coal mines. Several separate operations (transport of wood from its arrival at the mine to the shaft where it is to be used, hewing of coal by a gang, revetting of a shaft) are shown and analysed from three different points of view :

(a) an ordinary picture shows the actual operations ;

(b) a plan shows the internal structure of these operations, their approximate topographical conditions and their relation to the rest of the work of the mine ;

(c) Harmonograms, thanks to Professor Adamieki's method, allow of an even greater degree of abstraction and a table can be thrown upon the screen to show the exact times spent in productive and non-productive work and their relations with the distances covered. Graphic symbols, particularly well-selected, also illustrate the substitution of a functional organization for the old geographical organisation : each official, engineer or foreman, instead of being entrusted with a number of functions within a restricted area, is made responsible for one single function throughout the whole colliery. Three engineers, for instance, are kept employed, one on hewing, one on maintenance work, one on supplies, and each foreman is under a different

engineer according to the work he performs. Similarly, the supervisory staff is divided up into separate functions. A table shows the distribution of order for the day.

With regard to studies of work it is therefore necessary to know (and this knowledge is of a strictly scientific order) :

(a) The results of the different methods of manufacture used by similar and connected industries. This knowledge can only be obtained by an exchange of results between interested firms. Such information can be given without revealing any trade secrets.

(b) The determination of the general and particular characteristics of different trades and industries which can be obtained by a study of cycles of factory work, variants in such cycles common to various industries and the characterization of different manufactures according to the proportion of fundamental movements included in the total time required for carrying out the work.

To these studies must be added those on the machinery and the general and specific characteristics of individual pieces of work.

We have spoken of scientific organization, but as we have said the rationalization of work which is one of the formative elements of this system of applied science, by means of the technical study has its own absolute necessities.

We have already referred to the functions and movement of the workman in the specific task entrusted to him and the advisability of his rationalizing it, that is, rendering it harmonic which means perfect and stripped of all complications and useless superfluous and dangerous motions.

The study of the movements which is correlative to the times of execution requires as a matter of fact :

(a) The determination of fundamental movements and the consequent formulation of the rules and regulations on the time employed and the consumption of energy. All these values must oscillate between determined limits, which are independent of the process of work itself, and depend to some extent on the variety and differences existing between country and country, with their different conditions.

(b) The predetermination of the carrying out of the work in the process, consisting in a calculation made beforehand of the time required for different operations to be in logical relation with the system of fundamental movements. The sum total of partial times will give the complete time of execution and the number of fundamental movements will tell

us what type of workman is best suited to the work in question and what alterations can be introduced to ameliorate the system.

(c) The determination of essential movements which are to be distinguished from fundamental movements owing to the fact that they include all the series of secondary but necessary movements.

(d) The pointing out of the elements of physiological and psychological research in their relation to individual output.

We now enter fully in the field of psychological researches in its connection with technical teaching and with everything that effects or touches the specialized training of staffs of workers. These inquiries and studies are just as necessary as the others, if indeed not more so, because if the first mentioned have a general and universal value for the worker considered as a productive unit, the latter consider him as a man, as a psychological unit whose personal reactions it is worth while investigating when he comes into contact with a definite piece of work.

A series of experiments of the Hawthorne Work System made by the Western Electric Company has led to some results of the first scientific value. These experiments have been reported by L. Putnam, Elton Mayo, John Devey and others. It will suffice to indicate the points round which these researches turned. They proposed to study the behaviour of gangs of worker of different ages and sex undertaking the same work.

(1) reactions of individuals of both sexes, without distinction of age after work and at the end of the day ;

(2) comparison of reactions of adults with adolescents according to sex ;

(3) utility of periods of rest and shortening the days or work ;

(4) effects of different systems of controlling work on the worker's morale and output ;

(5) factors determining the worker's state of mind ;

(6) factors capable of exercising an influence on the *morale* and the output of the worker such as, ways of paying wages, rest times, meal times and type of food, hours of sleep and recreation, family conditions of workers and other circumstances outside the actual work life in the factory, isolated or group work, relations with other workers inspectors, etc. ;

(7) individual psychic and physical factors (pulse, arterial pressure, skin reactions, blood analysis, hygiene) ;

(8) physical and cerebral fatigue.

These studies are carried out, taking account of age and sex and also of the varying conditions of labour in different countries.

* * *

In all these departments of work, the cinema plays a role of the first importance. It allows movements to be analysed, decomposed and examined in connection with time factors and according to rationalization methods.

CINEMATOGRAPH TECHNIQUE. — In the case of cinematography applied to scientific studies of work, there are various problems which crop up. Some refer to the type of film while other concern the picture-making itself :

(a) What are the respective advantages of silent sound and talking films in this department? What about animated cartoons, sub-titles, the slow motion and accelerated projector? We can learn from pedagogical experience that all these types of films and projections can be useful according to the programme being developed.

There is no doubt about the utility of sound. The able worker can recognize by the sound a defect in the machine he is engaged on.

One may remark that the talking film is superior to the silent picture inasmuch as the comment can come off the sound track instead of through a special person. The commentary of a talking film must naturally be made by a competent person who must also take into consideration the intellectual level of the persons he is going to address. The utility of animated cartoons is obvious in schematic demonstrations which the photograph cannot give. Slow motion and acceleration are useful for analysis and splitting up a picture into its component parts.

(b) *Actual picture-making*. M. RICHARD THUN. — Studies on work with the aid of the Cinema Brochure of the I. I. E. C. N° 19-1930). The author of this monograph calculates that for the use of the motion picture in the scientific study of work any camera may be used.

Scientific management films can be taken by almost any camera having a sufficiently large box. The diaphragm should be adjustable. The maximum aperture should be 180. This makes it possible to take photographs under bad conditions of light and, secondly, the longest possible exposure is often desirable in the interests of detailed study. On the other hand, short exposure is sometimes necessary, and it should therefore be possible to reduce the aperture to a small slit of 5 mm. Any further reduction is useless, since in most cameras

the distance between the diaphragm and the film is about 10 mm.

If the camera has a motor drive, the latter must be specially constructed for our purpose, since in this matter, it is much more important to observe a regular and constant succession of photographs. For the same reason, the tachometers constructed with most cameras are useless, as they are not sufficiently accurate if the number of exposures is also to be taken as the measure of time. In this case, the ordinary commercial precision tachometer is to be recommended. The lag of the speedometer should not be so great as to prevent the pointer from measuring small variations of exposure. Clockwork is not suited in most cases.

For the examination of most working processes the camera should take 1000 pictures a minute, or $16\frac{2}{3}$ per second. A higher rate is only necessary if very rapid human movements are to be observed, such as in typing. On the other hand, a rate of only 500 or even 200 pictures a minute is very often wanted. These low speeds are required for the analysis of very protracted processes, when it is also important to economise film. Single photographs will be taken when the camera is only required to serve, as it were, as a stop-watch. Thus a single picture will always be taken in cases when a simple time study would be measured by a stop-watch. This method is considerably more accurate than a mere reading by the stop-watch, and the cost in film material is very small. The camera must be able to focus the view directly in the viewfinder. There is no occasion to observe the picture in the viewfinder while the film is being shot, if the finder is efficient. For purposes of scientific management films, the stand required is the ordinary cinematograph stand with universal joint. In order to photograph a workman who is frequently changing his position a movable stand is an advantage. The apparatus necessary for taking dramatic films — adjustable diaphragm single-picture registering device reverse, apparatus, etc. — is not essential. It may be useful to be able to turn the film backwards, if in the interests of economy it is desired to take several pictures on one section of film. On the other hand, each picture is found to be so small when it comes to be examined that this drawback generally outweighs the saving in film.

Whenever possible, scientific management films should be shot by ordinary daylight. If the light is not strong enough, a minimum of artificial light should be employed so that the conditions of work at the time when the photographs are taken are as

far as possible normal conditions. For this reason the camera should have a lens working at the largest possible aperture.

If artificial light is unavoidable, care must be taken that it is of the kind normally employed. If, for example, under normal conditions of work the light is indirect, that is, diffused, the same kind of lighting must be selected when taking the film. The pictures will not be so attractive as they would be under strong light thrown from one side, but, what is much more important, the movements shown will more closely approximate to the movements as actually made. The artificial light should be turned on some time before the operator starts turning in order that the worker may have time to get used to it. Incandescent lamps are to be recommended as being less liable to injure the eyes.

Films in scientific management are primarily useful for measuring times; this at least is one of their essential purposes. Time-measurements themselves may be made by two different methods.

(a) Inclusion of a clock in the photograph.

The older of the two methods consists in photographing a clock. In this case the number of photographs need be only approximately constant, since the time corresponding to each picture will be registered by the clock itself. In order to facilitate reading, the clock must not be too small, but it must also not occupy too much space in the picture, or it will mask something else. The dial of the clock should consist of white lines on a black background, and the white lines should be rather less thick than the spaces between. The hands should be white. In this way we obtain a better picture than by the use of the usual dial with black divisions on a white background.

The number of revolutions of a clock used for this purpose is determined by the following consideration: the normal number of photographs taken $16\frac{2}{3}$ per second — 1000 per minute. This rate is enough to measure with sufficient accuracy processes of which each phase corresponds to about 5 pictures, that is to say, the duration of each phase must not exceed 0.005 minutes. If the beginning and end of the phase are to be ascertained with 95% accuracy, the clock must be able to register $0.95 \times 0.005 = 0.00025$ minutes. A substantially, more accurate reading will not be obtainable even with an aperture of 120 and more, since a more quickly moving clockhand could not be photographed sufficiently clearly.

The clock best suited for the purpose is a Morse clock, but one in which the usual speed-regulator

is replaced by what is known as a gramophone-regulator. A regulator of this kind gives a maximum variation 0.5 % which is enough for most purposes. The clock has three hands, of which the quickest revolves 50 times a minute, the next 5 and the third 0.5. The reading accuracy varies according to the size of the clock in the photograph, from 1/400 to 1/100 of the circumference of the dial (1/8-1/2 of a division), so that a reading of 0.00005 to 0.0002 can be taken by the quickest hand. I have recently used a clock whose hands only revolve at 1/5 of that speed. This clock saves the rather troublesome multiplication of readings by 2, while the readings are sufficiently for most purposes.

In practice the time of each separate picture is often not taken, but only the time at which the movement begins and ends. In such cases it must be possible to read longer times directly by the clock, so as not to have to observe and register each passage of the hand through zero. Slow-motion pictures naturally necessitate more slowly moving hands. The clock described above with the measurements mentioned is the product of experiments in cinematographic time and movement study. It has assumed its present form as the result of numerous experiments with a wide variety of devices and velocities. If at any time one or another hand is not required, it is easily and best taken off before the film is shot, since unnecessary hands only make the clock difficult to read. The size of the dial must depend upon the size of the photograph. The clock is therefore best fitted with a number of alternative dials, each with its own set of hands.

For examinations extending over a considerable time, it may be useful to include in the photograph another clock recording the time of day. As a rule however, it is advisable not to overload the photograph, but to record such particulars as this in a special note.

It is sometimes difficult to place a clock for purposes of photography; this difficulty can be got over by affixing a clock to the camera. It can then be included in the film either by means a special lens which reproduces the clock through a small prism or mirror or by means of the principal lens. As the clock is in this case usually on a different focal plane, a lens is placed in front of it, which projects it into the focal plane. An advantage of the former procedure is that the clock's focus does not change with the adjustment of the lens proper; on the other hand its presence involves considerable alteration to the camera. The use of an auxiliary lens only necessitates a few changes, but in this case the auxiliary

lens will have to be moved to correspond with every movement of the main lens.

Clocks in which the hands are replaced by automatically moving figures have not been used for these purposes. The figures would have to change in a period of time very short compared with the time of exposure, that, is in about 1/100 of a second. Clocks of this kind have not yet been made.

(b) *Counting of the photographs.*

Time-measurement is very much simplified if the interval of time between each successive picture is completely constant. The means required for this purpose were discussed in the chapter on cameras. It is then only necessary to count the number of photographs. If the pictures are then projected for examination the projecting apparatus need only be provided with a counting device, which counts the separate pictures and at the same time indicates the time. Another method is to pass through the apparatus a second film alongside the original, this second film being numbered serially. These numbers will then be visible on the film projected. A disadvantage of both methods is that the serial numbers are not attached to the film, and, though this is of no account when the projection is for the purpose of examining a single process of work, it makes it difficult to find any given picture again. To avoid this drawback, the serial numbers can be printed on to the film; this necessitates special arrangements when developing and printing, but facilitates the examination of the films to such an extent as to outweigh this inconvenience.

Before each picture is shot, the prevailing conditions must be noted down, consisting of the following:

(a) Name, sex, age, height and weight, health (any recent illnesses, etc.) of the workmen to be photographed.

(b) Time of shooting the pictures.

(c) Local conditions (size of room, temperature, humidity, weather).

(d) Remarks.

These will include any factors which might influence efficiency, such as recent payment of wages, holidays, strikes, etc.

(e) Description of the work to be performed and of the tools used. These notes must be given serial numbers and before the film is actually shot, a photograph will be taken of a board containing the corresponding number.

Otherwise the technique does not greatly vary from the normal. As regards lighting, a few rules were mentioned above. The camera must be so

placed and the views so chosen as to reproduce the movements without any interruption. In the case of frequently repeated movements, the process will be looked at in the viewfinder after focussing, and any corrections will be made before shooting. The picture in the view-finder is best looked at by the person who will be analysing the film later.

The rate of turning depends upon the nature of the study. In most cases 1000 pictures a minute will be found the best rate. A higher figure is rarely necessary and a lower is only advisable for very long processes and when film must be economized.

The light should err, if anything, on the strong side so as to show details in the shaded parts. This point should be especially observed when the camera is in the hands of an operator who is accustomed to dramatic film work, in which light is mainly thrown on to the light parts, whereas for our work the dark parts are more important.

The camera should not be moved more than is necessary to follow extended movements during the process of shooting, since movements of the camera often make it more difficult to analyse the movements under observation. When a stationary clock has to be included in the picture, the necessity of keeping the clock in view sets a limit to the movements of the camera.

If the film is only intended to give the exact times of certain processes, one or more single pictures will be taken after each process. In this case the procedure is the same as for ordinary time-studies with the stop-watch. Before shooting, the work to be examined must be carefully noted and sub-divided into a number of parts. The only difference from a time-study carried out with the stop-watch is that instead of a reading of the watch and writing down of the time, a single picture is taken. In this case the camera is best operated by a time-study expert. If three separate pictures are taken, one just before, the first part of the work starts, one as nearly as possible at the end of the process, and one just after, the accuracy is greatly enhanced.

It is generally sufficient if the picture is taken from one side only, although certain movements will sometimes inevitably be masked. For the most part the course of the hidden movement can be

deduced from secondary signs, and this generally suffices for measurement of times. This may cause certain errors in regard to individual movements, but they are of small account in relation to the total result. If however, the proportion of masked movements is large, or if a very detailed examination of movements is being carried out, the technique should be somewhat modified.

To take the simplest case, photographs of one process will be taken from different positions so chosen that movements which are invisible from one position can be seen from the other. An objection to this method is that, if the same job is repeated several times, certain differences will appear. Still, the method serves its purpose in most cases. Since each process anyhow has to be taken several times, this procedure does not involve any additional consumption of film. It is as a rule desirable to change the position of the camera when taking several pictures of the same process.

A second method is to take the photograph simultaneously with two cameras in different positions. It is convenient to synchronize the two, either mechanically or electrically. This procedure necessarily involves a double expenditure of film.

Thirdly a single camera can take a picture from two sides by an arrangement of mirrors. The pictures can be taken with an ordinary camera and without expenditure of additional film, but the field of view is diminished. Which of these three methods is to be preferred must depend upon the circumstances of each particular case.

John Devey has said that the worker must be conscious of his own worth, for the success of the general output.

Psychologists in all countries — we may mention among others we have cited here *Sante de Sanctis* and Alfredo Niceforo for Italy — are quite in agreement in this principle which ought to be at the base of all rationalization or scientific studies of work systems.

The cinema is an instrument for education and teaching. It is at the same time the most formidable scientific instrument which the human spirit has been able to conceive for directing labour towards higher forms in the individual and social interest.

CINEMA AND COUNTRY LIFE

BY

Prof. Arturo Marescalchi

UNDER-SECRETARY OF STATE TO THE MINISTRY OF AGRICULTURE AND FOREST.

THE impression made by the cinema on the simple mind of the countryman, together with the powerful influence exercised by the didactic film on the minds and memories of children, are a proof that technical-agricultural cinematography is of great utility in the mental and technical evolution of the peasant. In addition to this, the cinema constitutes a powerful attraction to the masses, who can be gathered together in larger numbers by its means and more easily brought into contact with the organizations which have special functions of instruction and technical propaganda in the country.

Italy was one of the first nations to adopt the cinema for agricultural propaganda. The first film especially produced for this purpose goes back to 1906, but from 1916 great strides were made in this direction and from that date, owing to the transformation of the "Cine-Agricultural Society" into the "Ceres Institute for Agricultural Cinematography and Projection" we entered into the really active stage. The Ceres Institute was joined to the National Institute "LUCE" to form its agricultural section and, with the aid of the Government, this institution undertook to encourage the development of the educational cinema and with in the agricultural cinema. In fact, although in the beginning the LUCE concerned itself only with the production of agricultural films, leaving the Travelling Lectureships and other agricultural organizations and the "Opera Nazionale per i combattenti"

to arrange for the projection of these films, there has been a great change since 1931, when the O. N. C. ceded its travelling agricultural cinemas to the LUCE. Since that date agricultural projections in Italy have reached a very large number yearly.

Travelling cinemas generally begin working in the first days of April and finish at the end of October, and in the space of three years they cover all the Italian provinces. The Travelling Agricultural lecturers take charge of the surveillance of projections and, in accord with the Ministry of Agriculture, fix the route to be followed in each province. These projections are always illustrated by lectures given by the experts of the T. A. L.

The projections are given in the open air, in the evening, in public squares, unless the weather is very bad, when they are held indoors, if possible in schoolrooms. Bills are posted up round the town or village by the T. A. L. and the local authorities, inviting the public to the show. As a rule, there is a large attendance; in many towns of Southern Italy there is often an attendance of from eight to ten thousand, and sometimes even more. The general average may be calculated at about 700 spectators for each projection. In many cases, the bands of the "Opera Nazionale Dopolavoro" lend their services.

As we have already said, the Travelling lecturers of Agriculture render themselves responsible for the projections, sometimes

actually giving them with their own portable apparatus, generally in correspondance with the Farming Courses for peasants which are held by this body in increasing numbers.

Projections are given also by Farm Schools and the agricultural sections of the Syndical Organizations, and it may be calculated that the total number of agricultural projections given in Italy is about three thousand yearly, with a tendency to increase,

The Ministry of Agriculture and Forests, in additions to supplying each Travelling Lecture Group with a cinematographic projection apparatus, has for years been giving every encouragement to agricultural cinematography by financial contributions, which this year will be much larger than in previous years.

The impulse given by the Ministry of Agriculture to the spread of the agricultural cinema is mainly due the undoubted efficacy of the cinema as a means of instruction and education for rural populations. It is impossible to obtain the same results by simple lectures, and cinematograph projections may often serve as practical demonstrations, especially for general courses. This efficacy of cinematograph projections, which is affirmed by the experts of the T. A. L., is confirmed by the large number of peasants who attend them, and any further comment on this part of the matter would be superfluous.

In any case, so much has been written on this subject, both in Italy and abroad, that there is no need to repeat arguments which are already well known to the general public.

Since the talking film has come to stay, agricultural propagandists are considering whether this type of cinematography can also be used for agricultural technical and educational films. The discussion of this point is still very animated, but apart from the fact that all the cinematographic equipment of the organizations possessing projection apparatus for silent films would have to be renewed, there is a decided tendency now, after a period of being inclined to accept the talking film, of keeping to the silent film

for this purpose. The reasons guiding this tendency are the same as those put forward by pedagogues and teachers in regard to the silent didactic film, which does not eliminate the personality of the teacher, but leaves him free to follow his own particular didactic methods. However, the last word on this subject is not said yet.

Another question that is being discussed is whether we shall keep to the 35 mm. size, or adopt a reduced size. Here too the tendency is to keep to the regular size, which, as we are assured by a large percentage of the agents of the United States Ministry of Agriculture, who have been able to make a practical study of this question, admits of the possibility of serious educational work. In any case, the problem is not by any means universally solved yet, and both in Italy and abroad the question of the standard size to be fixed upon is still being vigorously discussed; and therefore Italian agricultural propagandists, who are all supplied with projectors for the 35 mm. size and do not find small-size agricultural films on sale, are not in any hurry to see this matter settled.

It would, on the other hand, be very useful if we could have agricultural films in natural colours, because, in addition to being more lively and attractive, they would be very important from the didactic point of view, especially in connection with vegetable pathology, agricultural entomology, etc. Unfortunately, in spite of the many experiments that have been made and are still being made, we have not yet found the solution of this problem, nor does it seem likely that it lies along the road so far taken. A gleam of light is to be seen in the Daponte system, which is excellent as a scientific conception, but has not yet given sufficient grounds for judging its real value.

In concluding this short note on "The Cinema and Country Life" in Italy, we must not omit to point out that the agricultural film is shown to be more or less efficacious in according as the subject treated in it and the way it is treated is suited to the mind and soul of the peasant. The chief effort, there-

fore, of those who prepare and produce agricultural films, must be to keep as closely as possible to the peasant's ways of thinking and feeling, both in the photographic illustrations and the written explanations. The peasant has a simple soul and an even simpler mind, although he is quick enough in catching the right and useful side of things.

If perfection is to be reached in this field, cinematograph experts must continually study

the effect of their films on country spectators, trying to understand why certain films stir them while others perplex them. The peasant's appreciation is usually of great practical value, and only those who really understand the true nature of the peasant and how to plan their work to suit it can hope to produce films which will really be an efficacious contribution to agricultural propaganda and instruction.

THE RURAL EDUCATIONAL CINEMA

By

Professor Antonio Marozzi.

As an Italian and a Fascist, and proud to call myself so, I wish first of all to state that I consider the rural population the soundest, solidest and most fundamental element of the life and progress of peoples and civilization, and think, therefore, that everyone, in every class of social life, should use all the means at his disposal to attain the following ends :

First, to make the rural population more and more attached to the land, helping it to realize the immense material and moral benefits that its existence on the land, in close contact with the evolution of natural phenomena, brings to it and to the rest of humanity.

Second, to aid the improvement of the rural population, both from the ethical-moral and the technical-working point of view.

The cinematograph is and should be an excellent means for reaching these ends because it can perform contemporaneously the function of providing a country public with honest entertainment and an education that raises its moral standard and improves its working methods.

* * *

Unless I am mistaken, all those who concern themselves over the useful function of the

cinema admit the distinction between the educational cinema as an ethico-moral method and the educational cinema as a method of scientific instruction in the various occupations. In the agricultural field, this distinction is of the highest importance, and is, indeed, absolutely necessary.

I intend to deal separately with these two sections of the cinema, but wish to say at once that the directive organization must be a single one, founded on the collaboration of all concerned, as I will show further on.

* * *

The Educational Cinema with an Ethical-Moral Aim. Everyone who really knows and appreciates rural environment will agree with me, I think, that it is not desirable to show ultra-modern "star" films in the country, in which the luxurious, vicious and immoral life of great towns is presented and even exaggerated, or which at any rate give an artificial view of life that is far removed from the reality. The effect of such films is bound to be pernicious.

Town life is one of the most characteristic social evils of the present age ; and if we are to combat it, we must avoid everything that may delude country people, especially the young folk, and attract them to the town.

The first item in our programme, therefore, must be the careful choice of films, everything that might constitute a moral danger being excluded.

Let us be clear, however. To make films that are morally sound, that uplift the dignity and pride of the countryman, does not mean making films that are boringly pedagogic.

It is quite possible to entertain the public while giving it a moral education; but it must be done with ability and without making the lofty aim too obvious, or, in other words, without giving it a scholastic air.

This is not an easy task. I know. But I think the difficulty may be overcome by the collaboration of persons who know country life and country people well and intimately, and persons who have the necessary artistic and technical ability to put together a film which will interest and attract this public.

Perhaps I can explain better what I mean by a personal example.

I can say with truth that I know the country people in Italy thoroughly, even the humblest classes among them; and I have spoken to them in public, in very serious and difficult moments, and have always succeeded in reaching their minds and hearts. But if I were to attempt to prepare a film for them, and to take upon myself the parts of author and director, I should certainly make a mess of it.

* * *

The Cinema in Training the Worker.

These films must be suited to the characteristics of the rural public to which they are to be shown, and also to the conditions under which they are projected.

A real farming public, that is to say, farmers who own or rent their farms, *métayers*, labourers who have an interest in the farms where they are employed and so on, who are asked to attend an instructive cinematograph projection, should be shown films that are entertaining as well as instructive. Explanations should be restricted to those that can be given in the talking film or by short statements projected on the screen.

In these cases, the instructive subjects must be clear and simple, so that the country folk, who have but little general culture, may easily understand them.

It is quite another matter when the instructive film is presented, not during a cinematograph spectacle but as an auxiliary during lectures by technical teachers, that is to say, travelling professors of Agriculture, or during special courses of instruction in elementary schools, farm schools or special teaching courses.

Instructive films for adult farmers must be quite different from those for the young members of farming families, the mentality being quite different in each case, so that the teaching must also be different.

For instance, a projection showing, in the clever way that experts are able to manage, the growth of a herbaceous plant, so that the spectator can follow, in the space of a few minutes, a process that has taken days to complete, might be a very useful aid in a practical course of applied botany for school children; but it would not be advisable for a public of adult peasants, who would not understand the true relation between the slow natural phenomenon and the rapid one shown on the screen. They might get the impression that they were being presented an artifice that has nothing to do with reality, so that the result would be negative.

* * *

The educational cinema might be a very valuable means of propaganda if it were to show clearly the progress of good practical methods, and the transformation of products, the results of cooperation, etc., etc., especially if the pictures were well chosen and accompanied by a few convincing figures. But even in this case we ought to have an exact, practical knowledge of the subject to be treated; we must keep in mind the natural conditions of the place where the films are to be shown, such as climate, soil, altitude, etc., and of the agricultural characteristics, if we are to get any practical results.

I can make my meaning clearer by giving two more examples.

If we were to show the cultivation methods of a flat northern zone to the farming inhabitants of a southern hill zone, it is obvious that the latter would not see any possibilities of imitation.

We should show films illustrating the progress of enology and the benefits accruing from Associations of Vine Growers in vine growing districts, and not films dealing with cheese making and Associated Dairies.

* * *

One last observation, before I conclude.

The cinematograph has not made much progress in the country, because it is not easy and very seldom profitable, from the point of view of the cinematograph firms, to give these projections in little country towns and villages, where it is difficult to find suitable local agents for the necessary propaganda.

Projection apparatus mounted on lorries can do much to make this problem easier, but it cannot entirely solve it.

As the educational cinema has, on the whole a high aim of public interest, it can and should be financially aided by State and State subsidized organs and by associations that have similar aims; but I should not be inclined to suggest that we trust solely to these aids. The present moment is a difficult one for everybody. On the other hand, it is only right and it is also eminently practical, when one needs financial aid, to try to reduce this need to the lowest possible minimum and to profit by any aid that can be got, even indirect or apparently secondary aid. The chief thing of all is to aid oneself by perfect organization.

* * *

From the above brief summary of the question, we may conclude that the rural educational cinema should and will make considerable, perhaps even great progress, on the absolute condition that it is carefully organi-

zed by the collaboration of all those who can make a useful contribution to it, whether as organizations or as individuals.

The first necessity is the collaboration of clever authors and directors with persons who have a perfect knowledge of the natural, technical and economic environment of agriculture in each distinct zone, and also of the inner mentality and grade of culture of the relative rural populations.

Agricultural experts could sometimes suggest themes; they could always judge a priori whether a theme is more or less suited to its purpose, and could give useful advice to authors and directors.

The national groups of agricultural experts should be able to obtain, without trouble, the opinion and assistance of the experts special to each zone, who, in Italy, would be the Travelling Professors of Agriculture and Directors of Farm Schools, in the choice of films suited to each locality, whether as part of the cinematograph spectacle, or for the spread of information, etc., or especially as an aid to lecturers and in teaching courses.

The collaboration of all those who can aid in making the projection of films in small country districts economically possible is also necessary.

Above all we must find the local agents who will be able to make the necessary propaganda to persuade country people to attend the cinema, on payment of a small, the very smallest possible price of admission.

It would be advisable to form a special committee in each rural centre, composed of some authoritative representatives of the farming class, and if possible the representatives of their Associations, which in Italy would be the Agricultural Federations and Syndicates. Other persons with some authority over the farming class might also be added, such as the Parish priest, schoolmaster, parish doctor, responsible members of the Communal Administration, etc.

The local committees should keep in constant touch with the Provincial Committees, which should be formed in a similar way, with the addition of the Directors of Travell-

ing Professorships, Farm Schools, etc., and these in their turn should keep in constant touch with the National Committees, and through these, with the International Institute, for a possible exchange of films, ideas, successful experiments and all those accords that experience may dictate for facilitating the important function to be performed.

* * *

The educational cinema in rural districts is full of useful possibilities, but there are many difficulties in the way, both in regard to the choice and preparation of the films, and the practical and economic possibilities of giv-

ing the projections. These difficulties may be overcome, however, more easily than is generally supposed, by the perfect collaboration of all those organizations and individuals which can give useful aid, directly or indirectly.

This collaboration cannot fail to be forthcoming when it is understood, in a clear and precise fashion, how useful the educational cinema may be in improving the moral and technical equipment of the modest and laborious farming class. By raising this class we shall ensure greater material benefits to mankind, and by giving it a sound conception of life, we shall help humanity on the road to the goal marked out by the Divine will.

THE FILM AND TECHNICAL TRAINING IN AGRICULTURE, INDUSTRY, COMMERCE AND THE MERCANTILE MARINE

BY

Engineer Karl Koefinger.

THE teaching of ideas whereby the student must later earn his living ought to be imparted accurately, especially in the beginning. Technical concepts can only be based on a solid knowledge. In productive trades and crafts especially, as also in agriculture, it is not enough for the beginner to learn how he must behave in a specific case. He must also know *why* he follows this or the other system of labour. It is indeed the knowledge and the understanding of the reason for things which allows the worker to abandon, within limits, mechanical work and introduce changes and improvements in method founded on his own perceptions. An individual judgment in all technical branches is not only helpful for the man who makes it, but often results in a superior productivity for a whole industrial organism. Indeed, it may

be argued that solid technical preparation is the reason for the industrial superiority of any country. The teaching of well grounded technical ideas cannot, however, be undertaken without appropriate teaching means. The best teacher and the best pedagogue cannot succeed when these are lacking. It used to be the custom to render as clear as possible to the student the processes of movements by means of improvised models, but complete success was rare. The motion picture not only allows the possibility of showing to a larger number of students at the same time cycles of movements, but can slow down or accelerate the course of the cycle or process, so as to facilitate a better and clearer understanding. The film stands for a unique and indispensable pedagogic means for illustrating processes of

movement to pupils. From the technical teaching point of view also, the motion picture offers the possibility, which has been unfortunately been so far neglected, of obliging the teacher to make the explanation of a process comprehensible by showing limited particulars, and preventing the spectator from being distracted by eliminating accessory details. No other method of presentation can prove effective in this respect, before a large number of students since it is not often that all can enjoy an equally good view.

Besides the use of the slow motion, geared-up projections and tricks photos we can render characteristic sounds audible by means of the sound film. A good lecture accompanying a film can be effectively repeated. Not all teaching institutes, however, possess sound and talking apparatus, while the spoken word is much inferior to the read word in the matter of mnemonic assimilation.

Agriculture is a craft often exercised without proper technical education, and as a consequence in the majority of instances is practised in an unprofitable and irrational manner. The film can provide the basic lessons for vocational guidance independently of the season. The peasants generally have more free time in winter, and thus with the aid of the film we can give them technical instruction in sowing, growth, harvesting, storing, grafting and combatting harmful insects of various kinds. How to increase the productivity of different types of land, rational manuring, the use of new agricultural implements are all things which can advantageously be taught and explained by the motion picture. In agriculture, where the technical training is often imparted only by the father and mother, and generally on antiquated lines such as to generate irrational results, a solid technical training with partial use of the film is all in the interest of the national economy. In vine-growing, for example, the manner of carrying out a successful struggle against harmful insects can be taught by the film, increasing in this way the yield of the vineyards.

Industry and crafts provide an almost inexhaustible field for the educational film in our technical epoch. In the majority of instances, it is not possible for the student to learn, by remaining at his place of work, the most recent rationalized methods of work. Yet it is only the employer and the workman who follow the latest and most rational methods, systems, implements and machines that can stand up to competition. To mention some cases amongst others, we may refer to electric welding operations, and compressed air machinery which can be made comprehensible in scholastic halls by means of the film.

This does not mean that after attending a lecture or two on modern welding methods a man is capable of taking up a job. The acquirement of manual ability has nothing to do with the motion picture. The film can, however, show the wide field of applications which a beginner can only learn after considerable loss of time. The good educational film must succeed in concentrating the attention on the essentials of the process it is desired to illustrate.

In commerce, the shop attendant must be able to give the customer suitable advice in making purchases, especially now that the motto "the customer is always right" has taken such a hold. If the assistant is in a position to advise the customers in a good and useful fashion, the prospective buyer will become a customer. The film is the most useful means for teaching these things to shop assistants. In America, in the schools for assistants attached to the big stores, the film is much used for this purpose. The motion picture is given another application in modern office work, where it can demonstrate clearly and convincingly the organization and equipment of rationalized offices.

The mercantile marine and navy make use of the motion picture almost exclusively for theoretical teaching. A special department deals with the building and structure of ships, the resistances according to the various speeds, screws and sailing. Vortices and ship structure according to the

strain set up by different speeds are best shown through motion pictures.

As we have pointed out before, the motion picture can well be utilized for improving the work of men already engaged in a trade or craft. In this case, the students have, as a rule, only a few hours available in the evening for technical improvement. Therefore, excursions and visits are often unable to be carried out, with the result that what remains as a possibility is the educational film of which generally insufficient account is taken, both as regards its utility and also from mistrust of the expense. Men who exercise a trade or craft in the provinces, but have no chance of learning new methods and seeing new machinery can learn and appreciate new possibilities quicker if taught and instructed by means of motion pictures. For example, an automobile factory which had established a repair and retail depot in the country was accustomed every year to send a chief engineer to explain to the depot staff the novelties and fresh ideas in reparations, etc. The trip with charges for stay and the interruption of work was a source of great expense. It was found that the cost of similar instruction was less when given to the local workmen by film, and had the advantage of more men being able to witness it at one time.

A special example of the utility of the motion picture in progress and improvements is supplied by the fact that it can spread scientific notions which are capable of being developed and put into practice and often form the base of new technical processes. It is often sufficient for a man practising a certain craft to receive a suggestion of improvements introduced into methods of work for him to adopt and put into effect the idea in his own special craft or trade. Many examples could be given. There is, for instance, the use of spraying varnish and the possibilities in the application of the photo-electric cell in industrial occupations when there is need of some apparatus sensitive to light, in welding processes, and in the making of durable alloys of metals and in riveting.

Only the film can teach young craftsmen the art of welding and allied work without putting the pupils to the necessity of costly trips to industrial establishments. These examples will suffice.

As we have already remarked, agriculture does not lend itself easily to rationalization processes, and its progress is rendered difficult by the conservative mentality of farmers and the shortage of leisure of the rural populations. The knowledge of improved methods of culture, and machinery, equipment, etc., can best be introduced to this class by the motion picture, since it can be moved about and is independent of the seasons. The film is especially advantageous when it carries a sound track, while the "talkie" can be utilized to comment on the latest results in the industrial agricultural and sporting fields. Rapid trains, aeroplanes, automobiles, appliances for making the railways safe are usually subjects which lend themselves well to film treatment.

Cultural pictures give an idea of the possibilities of trade in far off countries. Many an able merchant or shop-keeper has profited from things seen on the film. The spectator can also learn many things about the tourist possibilities of a country from films on explorations.

The motion picture is very useful in bringing an article of commerce to the notice of the public, owing to the fact that it can employ both acoustic and visual means of propaganda. The propaganda effect of an advertising film shown in a public cinema is the more marked, the later during its running the public perceives it is an advertisement. Especially valuable for propaganda are films which, besides boosting an article, succeed in demonstrating, in a convincing manner, the worth and merits of the article in question. The majority of the spectators at a cinema programme are constrained to witness the advertising picture because it forms a part of the programme.

Public cinemas are spread all over the world, and there is scarcely a village of any size that does not boast one. Could we not

elaborate a plan for organizing cinema shows for the purpose of demonstrating domestic industries and crafts easy to learn for the benefit of the people which would help them to make money for themselves and their districts? Such a scheme would be especially useful in times of economic crisis like the present. The preparation of the cinema material ought to be entrusted to specialists attached to the state service. In the schools, the attention of the pupils ought to be drawn to various trades and crafts by means of film projections. In order to assist young people in the choice of a trade or craft, the scholars and students who have finished obligatory schooling ought to be taken to cinema lectures illustrating the various trades

for the young generation. The film could prevent boys and girls striving to find occupation in trades for which a psycho-technical examination would show that they had no inclination. The interest of the various governments in the motion picture, which has now assumed legal forms, unfortunately only refers to theatrical films projected in public halls. The educational film, which is of enormous importance for the general industrial and economic instruction of the people is neglected. It would be in the economic interest of all peoples to find the means for a solid technical and general instruction by means of educational films. Intelligence and the powerful undertakings are not the only factors of a people's wealth.

THE EDUCATIONAL CINEMA IN BELGIAN FARM AND TRADE SCHOOLS

By Dr. LINDEMAN, Principal of the Superior Normal Institute of Agricultural Domestic Economy of Laeken.

The use of the film as an aid to understanding is not much in vogue yet in Belgium. Under the auspices of the Ministry of Agriculture, two films of a definitely scholastic nature have been put at the disposal of schools of agricultural domestic economy, which have been shown with great success in farming districts, namely, "*Breadmaking in the Farmhouse*" and "*The Making of Pont l'Evêque Cheese in the Farmhouse*". Other films produced under the auspices of the same Ministry are of a documentary character and intended mainly for the general public, namely "*Belgian Agriculture*", "*Belgian Farm Life*", "*The Embellishment of Rural Life*", etc.

Agriculture and rural domestic economy are applied sciences which differ considerably from one country to another, and often from one region to another. Teaching and also, as a natural consequence, educational films must therefore be adapted to these regional characteristics. Foreign films, instead of being an aid in teaching, frequently run the risk of confusing our farmers and giving them false notions of things that to them seem elementary. An American agricultural film, for instance, would be of but very relative use in a Belgian school.

It has not been possible, so far, to make experiments in the teaching of farming by means of the film in Belgium. Film production is very costly, and there is certainly no one here who could lay out money on this kind of film at a dead loss. No school possesses the means to form a film library suited for teaching. Government intervention is therefore indispensable. On the other hand, very few schools have any projection apparatus.

There is not the slightest doubt that practical agricultural teaching on a farm, where the various labours connected with cultivation are carried on and farm animals are reared, under the intelligent direction of a teacher who knows how to make his pupils observe life in its reality and how to organize systems of practical utility for them, is much superior to the best cinematographic projection.

And another point is that the talking film should be absolutely excluded. It is not enough for the pupils' to hear the teacher's voice; his actual presence and convincing manner is essential. The pupil becomes too passive when he simply sees and listens. The teacher must make his pupils reflect, must put questions to them, make them collaborate actively in this teaching. All these advantages are excluded from the talking film.

It goes without saying that, as a complementary means for aiding them to understand the lesson, the cinema is always an improvement on purely verbal teaching or that founded on books. This latter, ancient method may be said to be non-existent nowadays in the farm and domestic schools of Belgium, where it is replaced by active methods

that entail the direct observation of actual life and the normal practice of working methods.

For popular lectures, the film is undoubtedly the most valuable auxiliary, because teaching of this kind is generally given indoors and far from realities. In this direction the educational film has perhaps greater probabilities of coming into use.

THE CINEMATOGRAPH IN AGRICULTURAL TEACHING IN GERMANY

Report of the "Central German Committee for Rural Cinematography".

Notwithstanding the many difficulties that had to be overcome, a great deal has been accomplished for rural cinematography in Germany during the 14 years that the Central Committee for Rural Cinematography has been in existence. The first difficulty encountered in the beginning was the great outlay needed for the purchase of projection apparatus, and the high rents charged for films. It was also difficult, at first, to obtain really good films suited to a farming population. The Central Committee brought its influence to bear on the cinematograph industry with the object of persuading it to produce propaganda films which were really didactic, and this had the effect of drawing the attention of those interested in farm education to the agricultural film.

The countryman does not see the many things that are a commonplace to the town dweller, and his life follows a simpler rhythm; the objects and proceedings that form his occupations taking a less feverish course than that characteristic of big towns. The film must therefore be projected more slowly in the country, to suit the slower process of the rural mind; but on the other hand, the countryman retains a much stronger and better memory of what he sees, and the fact that he sees reality projected on the screen is therefore of great use to him. The film not only presents real things to him; it *bridges distance*. The man of Oldenburg can see how an East Prussian treats his horse, without leaving his own village.

The film makes a greater impression on the countryman than a printed book, the spoken word, a drawing or lantern slide.

(a) Principals of farm schools are in agreement in pointing out that the use of the cinematograph in teaching and in lectures has been increasing continuously during recent years. There is no doubt that these projections are not only of great value,

but they also considerably increase the interest of the public, whether it be a public of students or of farmers.

Before there can be any real solution of the problems connected with economic progress, especially the problems concerning the country and rural populations, we must first bring about the education and culture of the great mass of the farming population. Those who belong to the Information Service know that it is possible to educate these masses only by means of films, and that it is by this means also that we can encourage the spirit of union in the different farming classes.

We are no longer able to give pupils a conception of fact by word of mouth alone, not even for the simplest and most objective things. Up to a certain point, the film contains within it both word and fact. Every good image leads to the formation of a concept in a much better and more perfect way than any description could do. We must not think of effects in school, but of the growth of knowledge. What we have to think of there is animals, tools, machinery in motion, forms of activity, man's different experiments; we have to make pupils see slowed down and accelerated phenomena schematically. Here the film must be made use of, but it must not be too long, or the pupil would have to make too great a mental effort. All didactic means must submit to the laws of teaching, even externally, otherwise they will not find a permanent place in the school.

(b) The film should be used only for those subjects that by their nature need to be filmed, because the other didactic means do not serve the purpose or are insufficient. Such subjects as the raising of cattle, sowing the seed, the use of machinery, the milking of cows, preparation of fodder, manures, etc., are the most suitable to be dealt with in this way, and good results can be obtained by them.

The film has therefore become indispensable in teaching, as all teachers and scholars are agreed.

(c) We have obtained excellent results with the ordinary silent film, but everything seems to point to the use of the reduced size film, for which a much smaller and therefore more easily managed apparatus is required. But the main thing is that it is much cheaper, and is not subject to police control against fire.

Experience in this field is lacking, however, since we have not yet a supply here in Germany of projection apparatus for small-size sound film.

When teaching, the master has various methods at his disposal for explaining the subject to his pupils. As aids to take the place of real things, there is a great demand in farm schools for models in pottery, metal, cardboard, slate, plaster, paper; and designs of every kind and projections of every kind,

that is to say, lantern slides on glass or film, and films proper. The teacher must decide case by case which auxiliary visual methods are most suited to the subject he is dealing with. Expense is also an important factor, when it is a question of didactic methods that have to take the place of actual things.

The film has a greater explanatory effect and remains more impressed on the pupil's memory than the spoken word, because up to a certain point it combines the advantages of truth (movement) and the word, which latter, of itself, has no elements of life, and disappears. As we said before, the word no longer serves for giving a living notion of even the simplest things.

There are no cinegraphic books in Germany, nor have we had any experience of them. Certain schools have made some amateur experiments in this field, but they have not been made public

THE USE OF THE FILM AND LANTERN SLIDES IN POST-SCHOLASTIC AGRICULTURAL TEACHING AND THE POPULARIZATION OF AGRICULTURAL SCIENCE

(Report by the Belgian Boerenbond).

The use of moving pictures and fixed projections, on films or glass plates, in post-scholastic teaching and in the popularization of agricultural science has made great strides in Belgium during the last few years, as the following report of what has been accomplished in this field at Louvain by the Belgian Boerenbond will show.

The Boerenbond organized a projection service in 1929 which deals with:

- 1) the sale of projection apparatus for moving pictures and lantern slides and the respective films and slides; to local syndicates which are members of the Boerenbond and to post-scholastic agricultural courses;

- 2) production of cinematographic films and lantern slides and renting of them to the above organizations;

- 3) supply of apparatus and lectures illustrated by moving pictures and lantern slides to the various lectures of the Boerenbond.

For this purpose the Service has a large stock of portable apparatus for the use of its lecturers, and a film library containing about twenty films, a lantern-slide library containing 400 series of film slides, most of which are accompanied by written

comments; it has, further, a supply of lectures with glass slide illustrations.

The Belgian Ministry of Agriculture has contributed half the price, in recent years, for the purchase of apparatus for special post-scholastic courses and agricultural schools; and it may be said that at least one out of two post-scholastic courses possesses an apparatus, as well as nearly all the agricultural schools.

As the purchase and maintenance of films meant too great an expense for a private organization like the Boerenbond, the latter made an agreement with the Belgian Cinegraphic University for the eventual renting of the films necessary for its local organizations.

In 1932 more than 1,500 series of lantern slides were let to the local organizations, post-scholastic courses and schools by this organization, and about 600 series were sold.

In 1930, the Boerenbond had a film of 3,000 metres produced by its own organization. This film, and the others owned by it have been projected about twenty times in different localities.

The use of lantern slides and, when possible, also of moving pictures gives excellent results from the point of view of assisting the understanding of the

subject, especially as lectures and post-scholastic courses are generally given in the evening and in winter.

In summer, farming competitions, experimental farms and collective work on farms complete the winter teaching.

CINEMATOGRAPHY AND AGRICULTURAL LIFE

(*Editorial Note*). The questions raised by the utilization of the cinema in rural and agricultural life may be looked at from the points of view of:

- teaching ;
- local propaganda in the direct interest of the rural population ;
- national and international propaganda having for its object the spreading of knowledge of agricultural matters and methods ;
- rest and well being of the peasant ;
- the best technical means for developing the use of the cinema for the foregoing aspects.

(4) *TEACHING*. In the domain of the rural teaching cinema, we must distinguish between teaching which has as its object elementary notions and the teaching which tends towards specialization and is therefore of a higher degree.

Teaching is in direct connection with the intellectual quality of the pupils' mentality. It must therefore be methodically graduated. Teachers must not only know how to teach, but must adapt themselves to the milieu where the teaching is given.

Consequently, agricultural teaching films must be *elementary* in the highest degree when they are not for popularizing general principles, and they must also be *special*, that is to say of a superior grade when it is proposed to go more deeply into certain special aspects of agricultural life.

The principles and questions of a pedagogic nature which reveal themselves in all sections of teaching are equally evident in agricultural film instruction.

How useful are silent films, sound and talking films respectively? Are sub-titles necessary in silent pictures? Should they be few or many? Who ought to edit them? What effect can a reproduction of the sounds of nature have in sound films?

All these questions, to which it would not be very difficult to add others, require a clear answer. The April Congress should furnish this answer.

In any case, without wishing to anticipate the decisions and views of the Congress, it is possible to indicate certain notions which arise from the researches and various symposiums organized by the I. I. E. C.:

(1) *Elementary Teaching*. — We are dealing here with the first form of teaching applied to agriculture and to the various manifestations of rural life. The persons to whom this teaching is addressed have a limited mental outlook, and their intellectual development is generally modest. It would therefore be useless to show them pictures of too complicated or too artistic a level, demanding of them a mental effort beyond their capacity. On the contrary, films for this class should be as simple as possible both in substance and form.

(2) *Higher Teaching*. — In superior teaching we mean such instruction as can be conveyed not only to students of agricultural Schools and agrarian Institutes, but also to country people, whose elementary knowledge of farm life, intellectual culture and aptitude point them out as aspirants for a higher education in view of the fact that superior instruction ought not to be solely considered in connection with a programme or type of studies, but also in connection with preliminary knowledge possessed by the student in the subject.

One enters the domain of specializations here. The film ought therefore to abandon the elementary character which it must have in first grade teaching in order to show a particular aspect or a special activity of agricultural life technically and scientifically in a thorough fashion.

A typical example is furnished for us by the films which stress the advantages of artificial manures or deal with grain production. In both cases, it is possible to demonstrate in an elementary fashion or in a technical scientific fashion the processes of fertilization and the advantages which result therefrom. The elementary film maintains the character of a general illustration and consequently is propaganda for processes that are to be recommended. The superior grade picture offers a technical scientific explanation of processes and gives a demonstration of their application. Explanation and demonstration may be superfluous for the not very well informed farmer, whom it is sufficient to convince of the advantages of a method for him to adopt it. Such explanation, however, will, on the other hand, be necessary for the better technician who wants to know the why and the wherefore of things, or for the school

where the film must aid and convince on a superior plan of scientific knowledge.

In practice, these two types of films have proved themselves very useful. Numerous inquiries made in different countries and the symposia organized by the I.I.E.C. have allowed it to be seen that both types have undoubted advantages for lecturers in general, as well as for professors and pupils of agricultural schools.

The agricultural film can also be considered especially for the rationalization of work in the fields and on the farm, and can be useful at the same time for technical self-betterment classes in this field of activity.

(B) LOCAL PROPAGANDA. — Local propaganda must not be confounded with the elementary teaching film of which have already spoken.

Propaganda implies advising, persuading, stimulating. All this can be attained and carried out more easily by other methods than by ordinary didactic methods.

This kind of propaganda, moreover, has a double aim. On the one hand, we must show the agricultural labourers what the cultivators of other countries are doing and what is being done in other districts of their own country, thus affording them the chance of making comparisons capable of inbuing them with a sense of the nobility of their work, inciting them at the same time to improve their methods and system of production.

Consequently, it is useless to instruct the farmer on elaborate land reclamation systems, which owing to their complexity must be carried out by the state or powerful companies. What we must give the farmer is a suggestive picture of what can enlarge his knowledge and increase his love for the earth.

Propaganda films of this kind could, for example, offer a comparison of cultures of the same product in the mountains and in the plain, show the importance of forests for the regularity of rainfall, and the damage done by rash deforestation in the hills. Such pictures can also show the possibilities of rural and artisan industrialization of certain by-products of agriculture.

Such pictures are not strictly teaching films, but they are instructive and educational films which, when brought to the peasant's attention, make him understand better what he may obtain from the soil.

These films can, as we have had occasion to point out, be extremely useful for propaganda in cities. The townsman, as a rule, knows only that little

of rural life which he has learnt from a few walks in the country or from reading, and is quite willing to let experts instruct him in the matter.

(C) NATIONAL AND INTERNATIONAL PROPAGANDA. — We approach a more important and difficult subject here. Great problems of national and international life come into play, even though only in the agricultural field.

Conceived in this way, propaganda has several aims. It has an eminently educational character, inasmuch as it seeks to spread the primary principles of social existence, to make known in the various regions of a state and beyond its frontiers what is being done for the benefit of the public. Under these conditions, the film becomes an instrument of understanding between different provinces or regions of the same country, or, what is still more important, between different countries. No kind of film perhaps as well as one which shows objectively and clearly the tenacious efforts of a people at work can procure for other peoples the possibility of understanding a nation and feeling near it, even if widely divided by space or political ideas.

Let us imagine the case of a country which has been defamed and libelled, which instead of being objectively illustrated has been artificially and intentionally slandered. A motion picture made with honesty and truth will allow the people of such a country to be known to the world as they really are: industrious, intelligent, patient. They will be shown in their accomplishments, with their reclamation of unhealthy lands or stony hillsides. Another film may illustrate the calm laborious and joyous life of a rural or metropolitan population which political propaganda has pictured as being a prey to sufferings and discontent. What other means of propaganda can bring the desired effect about so happily of bringing the nations to understand, to know and to esteem one another better than the motion picture? From reciprocal esteem peace should be born.

In this department of propaganda, the film of agricultural life can have violent repercussions because, in the cinema, the rural life does not lend itself to retouches and artificial tricks as does city existence. In the countryside, one can see man at his work, know him as he is, learn what he wants, what he can do and what his surroundings are like.

Considered under this aspect, propaganda has especially a political and social character. It is another form of national and international propaganda limited exclusively to questions of agricultural

production and rural life. It allows one to know and compare the practical systems of different countries, systems which often enough, are not universally applicable, but which, nevertheless, furnish useful points.

(D) LEISURE AND WELL BEING OF THE AGRICULTURAL POPULATION. — In this case, the film is called upon to play its role in connection with the workers' leisure time in general, and to give the rural populations the impression of not being entirely cut off from the life of the cities. It is called upon to fill in the moments of spare time when the peasant might be tempted to look for less harmless amusements and occupations of a less healthy and reposeful nature for mind and body.

We are dealing now with the recreational cinema, that is to say, a cinema which is directly connected with the problem of the rural exodus. The desire to enjoy the pleasures offered by the city is the chief cause of the rural exodus. The peasant does not like to feel himself a total outcast from the life of the city, and if he does not find in his village something which gives him the impression of participating in it, he will leave the land to go and seek in the town those illusory delights which he thinks are likely to satisfy his aspirations. Naturally, we must be careful not to offer the agricultural labourer motion pictures which increase his illusions about the joys of city life, awakening in him longings and desires he will never be able to satisfy.

Great circumspection must be used in choosing pictures intended to distract the villager in his leisure hours. Such films should be adapted to the surroundings in which they will be projected, and scenes and subjects should be chosen suitable for the minds of the rural spectators, eliminating anything likely to prove harmful.

Which then, it may be asked, are the kinds of films most suitable to divert the peasant in his spare time?

First of all, there is the dramatic film, provided that it is not done in too strong and lurid tints, and is confined to arousing healthy sentiments and touching real life. There is also the historical picture, the full canvass documentary film, the comic film, the film with a thesis which deals with some form of propaganda, such as the fight against the rural exodus, provided it is presented in an artistic rather than in a dogmatic fashion. There are all the various sorts and kinds of amusing, cultural and instructive pictures, animated cartoons, musical sketches, news-reels, and short artistic

films which arouse the interest and intelligence without seeming to do so.

All these films are suitable for agricultural workers in their leisure time, and can contribute to their well-being. They can procure for the peasants moments of healthy amusement, allowing their minds to relax. Interesting pictures will draw them to the pictures while "preachy" and pompous films will only drive them away.

(E) INSTALLATIONS FOR RURAL CINEMAS. — We have indicated among problems affecting the spread of the cinema among rural populations the question of the technical systems which lend themselves best for this kind of motion picture work. Leaving aside the matter of makes and formats of films, there are two systems which can be followed: fixed cinema halls or travelling apparatus.

It is somewhat rare to find fixed cinema halls in rural districts that are capable of regular use for a cine-educational campaign in the country. It ought not, however, to prove difficult for municipalities, associations and institutes of a local character to come to some arrangement for fitting up halls where it would be possible to project at proper intervals well chosen films for the country population.

Up to the present it has been thanks chiefly to the various travelling cinema outfits that the film has made some progress in country places. In almost all countries (it will suffice to refer to the splendid examples of this kind of thing to be found in Italy, France, the United States, Russia, etc.), there exist official, semi-official and private organizations which are properly equipped for this purpose, and are able to carry on a work of a great social importance. They set out to popularize questions of special interest for the rural world, and at the same time they offer under the most advantageous conditions — the majority of the projections are gratuitous — recreational representations along the lines of pictures shown in the city cinema halls.

The travelling cinema, especially created for the country districts and the rural population, deserves to be better studied in its effects and possibilities. It deserves to be made the object of greater care and to be more widely known.

Silent or Sound Film? — The silent film can doubtless satisfy the spectator of superior intellect who is accustomed to consider the moving pictures from an aesthetic point of view, and to seek in these pictures and in the manner in which they are shown the expressive forms of thought or a state of mind or a psychological situation. This is not the case with the peasant and the ordinary rural inhabitant.

If the film is of an elementary nature, it may be silent, but there must be proper sub-titles. These titles must meet certain definite requirements such as, simplicity, clarity, facility to be understood and to be read, etc. There is no need to insist on the necessity of technical exactitude in matters of which the rural spectator is likely to have first hand and correct knowledge. The peasant is quick to mistrust and irony in the face of errors of this kind.

When the film is of a more elaborate character, the sound and talk will offer great advantages, especially when it is necessary to accompany the pictures with sounds of nature. The "talkie", however, raises other serious points. The reproduction must above all be clear and perfectly audible. Again, there is the question of adapting the comment registered on the sound track to the special mentality of the peasant. Without wishing to underestimate his intelligence and intuition, everything which constrains the countryman to make an unnecessary mental effort should be eliminated. The same is true of the musical commentary.

In any case, the sound and talking pictures have one undoubted advantage for the rural world which is, that are heard and not read, which makes them easier to understand.

In the use of scientific pictures, slow motion and accelerated running and micro-cinematography have shown themselves of great utility. In presenting pictures to rural spectators, it is necessary to explain beforehand the nature of the film and the reason for the technical processes which show things under an unaccustomed light. Failing such explanation, such pictures may be badly understood and fail to produce the desired effect, since the scientific film is very useful for clearing up things and pheno-

mena which escape direct observation, and which it is necessary to exaggerate in one way or another to render them intelligible.

The question of *explanatory notices* comes up for consideration when we are dealing with didactic films which are either elementary or of a superior grade. In both cases, the utility of such notices is obvious. They permit the spectator to call back to mind and clarify after the projection what he has seen, to talk it over and to become in his own way a kind of propagandist for the motion picture.

* * *

Rural cinematography, whether it deals with teaching, propaganda or recreation, is everywhere an object of the greatest interest. But almost everywhere there is a lack of organization and coordination of the means at its disposal. This produces a confusion which hinders its growth.

We must above all appreciate the rural cinema at its true value. We must be able to use films which are appropriate — case by case and taking account of special fact — to the various local conditions, reducing cutting or increasing according to the circumstances, the didactic, scientific or recreative part.

The problems raised by the matter of the rural cinema are certainly not easily solved. But the life of the countryside cannot be neglected. It represents too important an element of the political economic and spiritual life of the nations. A Congress, like the one taking place in April, convoked in order to seek out the best ways for the teaching and popular educational cinema ought to place these questions in the forefront of its programme, if not to settle them once and for all, at least to indicate the lines of an early definite solution.

Dr. LUCIANO de FEO, *Editor and Responsible Manager*

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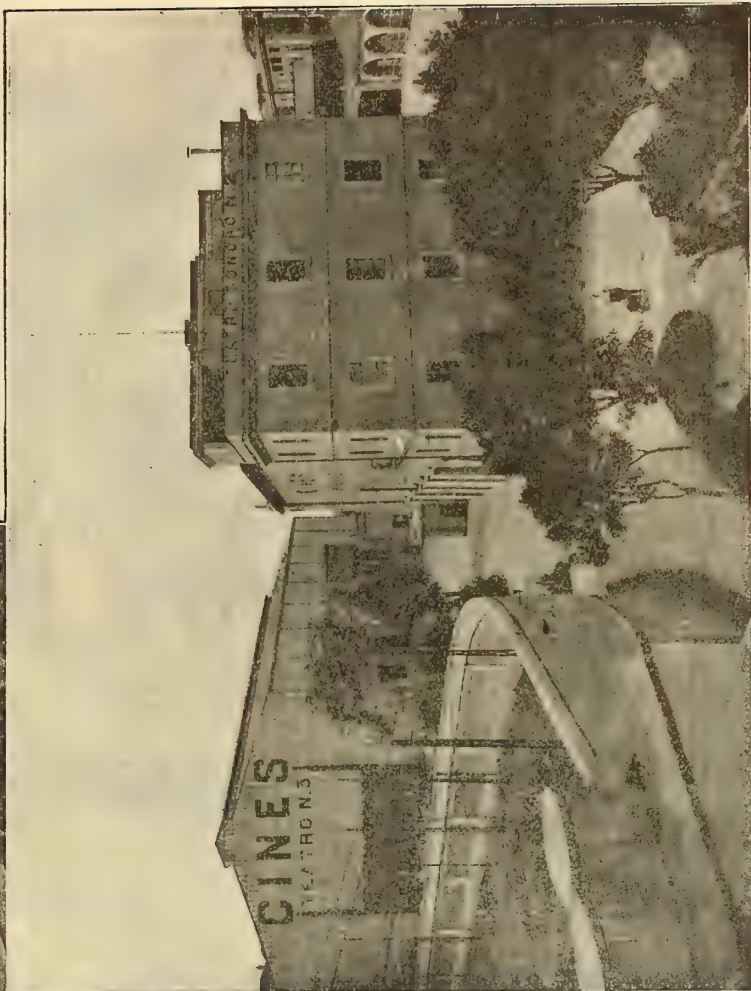
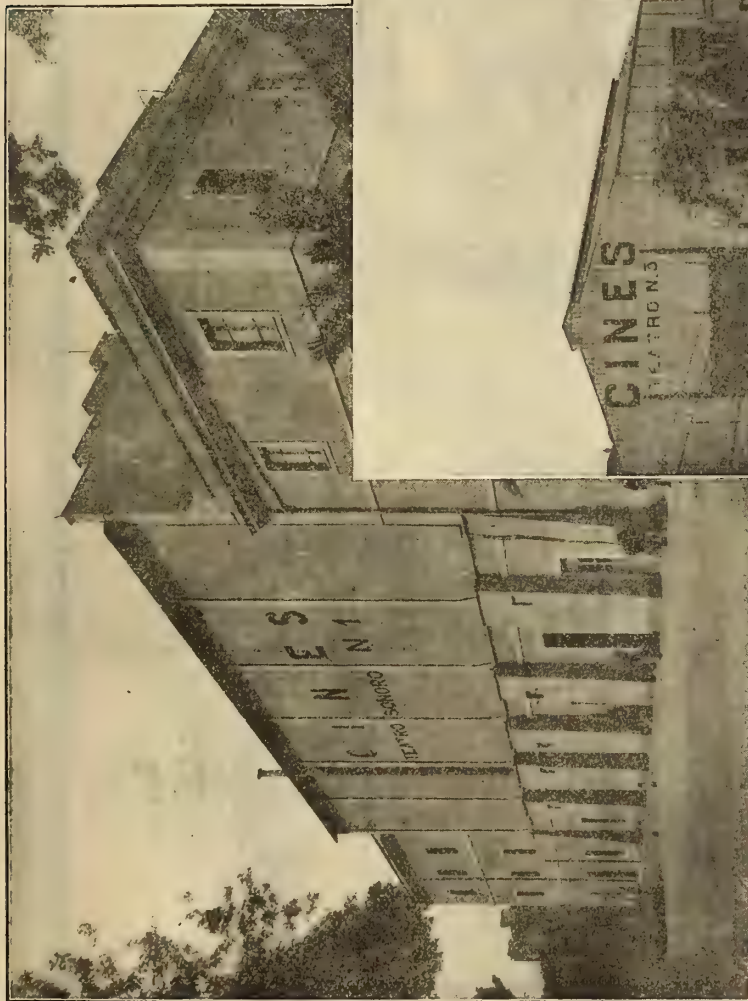
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BOARD OF EDUCATION

WHITEHALL - LONDON, S. W.

21st March, 1934.

THE Cinema, in a few short years, has not only changed the face of the world of entertainment, it has established its possibilities as a general cultural medium : and now it stands on the threshold of the school seeking admittance as a universal instrument for the instruction and education of youth.

Who can say, in view of increasing technical competence and still wider imaginative conceptions, what part the Cinema will be playing in national life and institutions and in international affairs, a decade hence ?

The Cinema is a lively restive instrument, and it behoves everyone concerned with it, either as producer or consumer, to ensure that it becomes subservient to the direction of those who can be trusted not to prostitute the gifts of science, but to use them for the spread of culture and good feeling, and for the instruction and wholesome delight of the young.

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PUBLIC HYGIENE AND THE CINEMA

BY

Laura Dreyfus-Barney,

PRESIDENT OF THE CINEMA AND RADIO COMMISSION OF THE INTERNATIONAL COUNCIL OF WOMEN.

I shall endeavour in this report to show the relationship existing between the cinema and public hygiene, and what it is necessary to do to permit the motion picture to carry out in this field better and better work.

Hygiene in Cinema Halls, Safety, etc. If we consider that at the end of 1930 there were in Europe about 15 million seats for the public in cinema halls and about eight million in America, that in far off countries like Japan and Australia there were at that time between 1500 and 1800 picture houses, we can see at once the importance of the question of hygiene, inspection and upkeep of such halls for the public health. It is also easy to perceive how and why motion pictures can cause injury or fatigue to children's delicate sight.

Each of these points was debated during our lecture in Rome and was followed by an exchange of interesting information regarding what was being done thereon in various countries.

There is no doubt that the big cinematograph halls arouse less serious anxiety in the matter of hygiene. Built specially for this purpose, they follow all the lines of modern progress in such matters as air ventilation, while a number in Italy are fitted with sliding roofs. The case is different when we come to look at the small provincial cinemas. They often consist of buildings hurriedly converted into picture halls and require special precautions to be taken to safeguard hygiene. At Perth, in Australia, for example, the cinemas

are cleaned after every performance, while in Japan the exhibitor is obliged to leave the hall empty for ten minutes after every performance, at the same time leaving all the exits open.

Measures of this kind ought to be enforced everywhere and made strictly obligatory.

In the matter of fire, safety measures and proper precautions are insisted on by law everywhere, but the great risk that comes from the celluloid film which heats quickly has not yet been eliminated. Governments try in vain to spread the use of non-inflammable film, which has been adopted in general for educational and popular instruction pictures.

Eye fatigue depends chiefly on the use of worn out and damaged film, on too rapid projection, or on illegible sub-titles or a bad seat in the theatre.

Social Hygiene. In all the countries of the world, progress in social hygiene has been made, thanks to the influence of the cinema.

As a matter of fact, social hygiene, which is the science of preventing diseases and abbreviating their duration, ought to be available for all, and the dictates of this science ought to be spread among the masses with the most potent and efficacious means existing — namely the motion picture. The percentage of *visuals* is about 80 per cent, and it would be possible to project propaganda films on the principles and elementary notions of medicine, on the best means for spreading a knowledge of them, and impressing them on the minds of the spectators.

In order to acquaint the public with the evils that menace health, the resources we possess in our battle with disease, and the caution that we must employ, in a word, in order that films of this type may have the desired effect, the pictures themselves must be adapted for each country and must often be modified according to the habits and outlook of the people for whom they are intended. Without this precaution, the film which is projected outside its country of origin will bring with it the risk of representing errors.

A great activity in the matter of social hygiene films is to be observed in all countries. There are now a number of travelling cinemas working right through the year. They motor round the country giving free projections which are often numerous. In France, each group of travelling pictures includes a lecturer and a chauffeur-operator.

Film repositories contain a quantity of pictures on questions of science and hygiene including such subjects as: tuberculosis, child upbringing, venereal disease dangers, cancer, campaign against slums, the care of milk, pure water, etc. These pictures are often shown in the schools.

The Italian picture « Danger Signal » which sets forth the question of tuberculosis in its various aspects and the efforts of the State to combat this plague has circulated in both silent and talking versions through the entire country, and made a deep impression on the public.

Poland, Egypt, Roumania, Uruguay, Brazil and other countries often use the French social hygiene films, indicating in this way the possibility of international collaboration in this field.

In Egypt, the creation of travelling cine-projectors will bring a knowledge of the principles and prophylaxis to the most distant villages. In the Baltic states, a social hygiene film propaganda service has been organized.

All this proves that even in the farthest off countries, both governments and private undertakings are concerning themselves with this grave problem.

Incidentally, I should like to say a word on

horrific and terrifying films. They are capable of having a deplorable effect on weak nervous systems, and it is a danger to show them to the masses; *Le Maudit*, *Frankenstein*, etc., though having real artistic worth, should have only a limited circulation.

Another question arises. Have proper measures been taken to protect cinema actors and all those who work in the studios and run great risks of personal injury? A committee has been formed in London for the purpose of establishing an insurance fund for illness and unemployment among cinema operators who, it would appear, are particularly exposed to the risk of tuberculosis.

Cinema, Medicine and Surgery. The cinema is widely employed now in medicine, surgery and scientific research.

It has certainly an important function in the study of biological phenomena. Using the slow motion projector, we can see the activity of cell life, while enlargement has rendered possible fresh observations which hitherto had evaded microscopic study, for the reason that the active phenomena are too slow to be perceived by the naked eye.

The reproduction of cells, the phenomenon of phagocytosis, the movements of the leucocytes, etc., are acts of biological life which may be studied daily through micro-cinematographic pictures and we have reason to hope that one day a whole unknown world will be revealed to us thanks to the cinema. The scientific film is clearly of international value.

The United States, Germany and Russia possess scientific and medical film archives fitted out and organized in the most admirable manner,

The *Technical Museum* of Vienna has recently projected some films on *The Disassociation of Atoms*, *The Enemy of the Blood* by Tobis. In the second of the pictures the public's attention is drawn to the dangers of venereal diseases. Professor Spillmann of the Medical Academy of Paris maintains that film projections are the best means for

spreading the knowledge necessary to combat venereal diseases.

Dr. W. Proetz of New York uses the film to illustrate his lectures to the students, and the studies on marsh land phenomena (malaria) made by the Ross Institute have all been filmed.

Thanks to the motion picture, Professors Stanhope, Bague Jones and Ed. Adolphe of Rochester University have registered their studies and work on the development of the bacilli and bacteria of yeast, and explained through the picture the conclusions arrived at by them. An interesting article appeared in *Movie Makers* of March 1932 on the use of the motion picture in eye surgery, especially for the operation of cataract.

An insurance company in England now intends to project a film on certain infectious microbes and the best defences against their attacks.

Dr. G. H. Gunn of Durban, South Africa has composed a picture on the mosquito that propagates yellow fever, while Dr. Bentley, who works in India at the *Bengal Office of Hygiene*, has stated that the spread of motion pictures dealing with the use of preventive measures against cholera and the precautions to be taken in time of epidemic greatly facili-

tated the doctors' task during a recent epidemic in Calcutta.

The Voice that Science Made is a striking picture made by Western Electric, and illustrates the marvels of the artificial larynx.

Much ground has been covered in France in the domain of medical and scientific pictures, following the first of these issued by the American Red Cross. Several of these films are due to Dr Comandon, M. Jean Painlevé, Dr Claoué and Jean Benoit-Lévy.

Professor Jean Louis Faure of the Academy of Medicine gave a lecture in May 1932 on the operation for uterine cancer, concluding his remarks with the projection of a film on the subject.

A remarkable series of talking motion pictures have been shown in the presence of French and American doctors at the American hospital in Paris. The films showed operations made by famous surgeons, and it was decided to give similar projections once a month.

In bringing this rapid summary of the medical surgical film to a conclusion, it would not be right to omit mention of the delightful French picture *Le Voile Sacré* by Dr Devraigne, which deals with the magnificent work women are doing for the public health.

THE EDUCATIONAL INFLUENCE OF THE CINEMA ON JUVENILE CRIMINALS AND DEGENERATES

By Professor BENIGNO DI TULLIO, of the University of Rome.

The continual progress that is being made in the practical application of the educational cinema is of considerable interest in a special branch of education which is of the highest importance to every civilized country, namely, the re-education of juvenile criminals and young people who have gone astray.

If the cinema is a great educational means for children, generally speaking, as everybody now agrees, it is obvious that it must necessarily be successful also in this serious problem of re-educating children of evil tendencies.

It is unanimously acknowledged that the cinema is of special importance for pedagogical purposes because it helps children to gain instruction and education much more easily and with less fatigue by the sovereign method of *observation* and *enjoyment*.

By enormously facilitating perception and therefore increasing the faculties of assimilation and fixation, the cinema helps the child to remember better, to understand more exactly, and especially to direct its mental activities to a *practical, objective* knowledge and valuation of reality, and at the same time restrains the continuous and at times dangerous work of the imaginative faculties. If this quality of the cinema is of great value to so-called normal children, it is of even greater value to those who come under the heading of delinquents or degenerates. These children are also frequently pseudo or genuine abnormal subjects psychically, and a pedagogic system which is mainly based on *observation* is even more necessary in their case and is indeed, perhaps, of capital importance.

In this connection, it must be remembered that the modern problem of the adaptability of a child to teaching from the psychological point of view must be considered according to different criteria, namely: the physico-morphological (somatic development and physical age); the medical the psychological (mental age: reactions to teaching as Q. I.); the scholastic (reactions as pupil possibility); and the pedotechnic (as capacity of undergoing training). (1)

This being admitted, it is obvious that the educational cinema may exercise a great influence in the

education of juvenile criminals, young people who have gone astray, whether from the psychological point of view, as a means of developing the intelligence for practical purposes, the scholastic point of view, as a means of obtaining the culture necessary for the requirements of social life, or the pedotechnical point of view, as capacity for training; or, in other words, it may aid the utilisation of the bio-psychic energies of the child.

The educational cinema has another field of action which is undoubtedly the most important of all, namely, that of the modifying and correcting influence that it may have on the instinctive-affective sphere, and therefore on the sentimentality and morality of criminal children or those who have gone astray. And it is especially from this point of view that the educational cinema may be most efficacious, especially since everybody feels the necessity of finding a new means of education that will enrich the culture and develop the practical intelligence of such children, and will also act directly in those psychological situations which so frequently cooperate with the very abnormalities of the individual personality in the development of the various criminal tendencies and habits.

Still in the same connection, we must remember also that the education of these children, as we recently had occasion to point out (1) must respond to certain fundamental medico-pedagogical criteria which deal with the necessity of first improving the child physically, before proceeding to the no less difficult task of reclaiming it morally. And we also pointed out that this work of physically improving the criminal or perverted child must always be not only opportune but also as wide spreading and deep as possible, a work that is rendered easier by the special cerebral malleability which is general in children, and is the greater in inverse ratio to their age. In fact, with regard to this primary necessity of physical improvement, it is well known how

(1) B. DI TULLIO. *Per la rieducazione dei minorenni che delinquono. Criteri fondamentali di medicina pedagogica emendativa*. (For the Education of Delinquent Minors. Fundamental Criteria of Emendative Pedagogical Medicine). "Rivista di Diritto Penitenziario", N. 3, 1933.

(1) S. DE SANCTIS. *Psicologia Sperimentale*. (Experimental Psychology). Stock, Rome, 1930.

frequently we find ill-nourished, wasted, oligæmic, under-developed, rickety neurotic, dyscrasic, endocrinopathic and pre-tuberculous subjects among children who are criminals or have got into bad ways; and it is equally well known often these subjects have bad habits and dangerous tendencies which encourage the growth of perversions and moral deterioration, even to the point of criminality which forms a vicious circle.

Very often these children are in a state of pseudo-abnormality (De Sanctis) from insufficient nourishment, auto- and hetero-intoxication, glandular insufficiency, various forms of nervous disturbance or anomalies of the lymphatic and sensorial systems, so that any training work must always be preceded by a through going attempt to improve their individual personality.

It is equally well known that there are still other young people who are marked by some particular psycho-physical constitution or abnormality which gives rise to a more or less pronounced tendency to crime in general, a tendency that becomes concrete, more or less precociously and intensely, according to the general circumstances of the subject's environment or other biological conditions which may be favourable to the development of criminality. (1)

Hence the necessity of remembering that, in the causal determination of the serious, precocious and persistent criminal phenomenon, we invariably find, even in minors, predisposing causal factors which are inherent to the particular structure of their individual personality, and preparatory and determining causal factors which are particularly inherent to toxic, traumatic, suggestive agents, etc., and to the special circumstances of the environment in general.

This being admitted, it seems evident that the educational action of the cinema should begin by a sound and well thought out propaganda of hygienic rules, which will help to make these criminal and outcast children understand the danger of bad habits and the serious prejudice to their morality. This end may be easily attained by means of films which make a satisfactory propaganda of those hygienic rules which are most necessary for the attainment and maintenance of physical and psychic health, and which illustrate the different kinds of harm that result from the abuse of alcohol and toxins in general, from idleness and vagabondage, from

the lack of a sound home education and of religious feeling, etc.

In this way the educational cinema may help to form a sound hygienic and social conscience even in children of this type, by means of a documentation that should be as lively and convincing as possible.

But in addition to this, the educational cinema can and should aim at a not less important work of education by means of visions and documentations which, by their pedagogic-moral content, may act directly on whatever may stand for the sensibility and moral conscience of these degenerate and criminal children.

To this end, we think that the cinema may be largely used as an educational system based mainly on the highly important play of the reaction. No one, in fact, can have any doubt today on the importance of the modern psycho-analytical tendency of pedagogy in general (1) and emendative pedagogy in particular. It must be admitted that if many criminal tendencies, especially the more serious ones, are always due to an initial urge which is founded on a more or less serious predisposition to crime, joined to that particular morpho-physical psychology which we recorded above under the name of criminal constitution, they are also more or less strongly upheld and favoured by special psychological situations and particular ideo-affective complexes which act by facilitating their realization; which fact becomes of special importance in all those cases where exists a psychological state consequent on more or less remote reactions which strengthen or even sustain the particular dynamism of the various tendencies to crime consequent on a generic or specific predisposition to crime itself; or where there are particular ideo-affective complexes which favour the very persistence and gravity of the criminal phenomenon.

In this connection, we need only recall the now generally admitted importance which certain obsessions have in the genesis of different forms of specific-recidivate criminality, namely, pocket-picking, theft, fraud, sexual degeneration, etc., (2) to be convinced that a psycho-analytical pedagogic procedure applied through the educational cinema may be of considerable importance in the re-education of criminal children and those with evil tendencies.

(1) B. DI TULLIO. *La costituzione delinquenziale nella etiologia e terapia del delitto*. (The Criminal Constitution in the Etiology and Therapy of crime). Anonima Romana Editoriale, Rome, 1929.

(1) P. PFISTER. *Pedagogia e Psico-analisi*. (Pedagogy and Psychoanalysis). Ed. Stock, Rome.

(2) B. DI TULLIO. *Manuale di Antropologia e Psicologia criminale*. (Manual of Criminal Anthropology and Psychology) cited.

Psychoanalysis, in fact, may do much for the mental education of such children by suppressing dangerous inhibitions and liberating energies which are imprisoned and are more or less anti-social, and which must be given a possibility of outlet that is at least adequate to the necessities and requirements of codified morality, or which must be subjected to the domination of the conscious and moral personality. It may do much, whether these children are simply pseudo-abnormal, in which case the psycho-analytical procedure will be easier, or whether they are genuinely abnormal, in which case the psycho-analytical procedure although still undoubtedly useful, must be subordinated to other medico-pedagogical criteria of not less importance.

This psycho-analytical procedure must therefore tend first of all to the evacuation of those ideo-affective complexes which are dangerous because they have an anti-social and criminal content, in order afterwards to obtain the strengthening of the inhibitory mechanism by developing adequate critical and moral restraints. In this way, this procedure may serve both to modify and improve, by a process of graduation and refinement, all that collection of instinctive manifestations and emotive dispositions, primary or derived, which constitute the so-called paleo-psyche, and to strengthen the inhibitory and resistance capacity of the neo-psyche, thus encouraging the development of the individual's capacity of adaptation to social life.

In other words, although we are confirmed constitutionalists in the matter of the aetiology of crime, we cannot refuse to acknowledge that the method which enables us to provoke the evacuation or sublimation of those complexes which have most to do with the encouragement of the realization of criminal tendencies, is undoubtedly a work of great and certain educational efficacy.

Since we are quite in agreement with those specialists (De Sanctis, etc.,) who hold that psycho-analysis may also help to liberate a young person who is a criminal or has gone astray from those instinctive obsessions which are consequent on particular reactions connected with more or less conscious trauma, and which exercise a harmful influence on the conduct and on the capacity of adaptation to social life, we are of the opinion that the educational cinema may serve this purpose very well.

To this end, however, it is necessary that the educational cinema should be developed on the foundation of an exact knowledge of criminal anthropology in general and of that which constitutes the particular dynamism of the most common criminal manifestations. It is only in this way that the educational cinema, by acting with precision on the special anthropo-psychological situations which are most frequently encountered at the base of the mechanism of development of the various criminal manifestations, will find its task easier and success more certain.

All this is still to be done; and those concerned must get seriously to work and experiment with the use of this new means for the training of juvenile degenerates and criminals, which may help to make more and more efficacious the prophylaxis and therapy of universal criminology, which, by the merit of Fascism, is being carried on in Italy by a really perfect organization.

(1) B. DI TULLIO. *Manuale di Antropologia - Psicologia criminale applicata alla Pedagogia emendativa, alla Polizia ed al Diritto Penale e Penitenziario*. (Manual of Criminal Anthropology and Psychology Applied to Emendative Pedagogy, to the Police and to Penal and Penitentiary Law). Anonima Romana Editoriale, Rome, 1931.

THE CINEMA AND THE NATIONAL MATERNITY AND INFANCY INSTITUTE

(Report of the "National Institute for the Protection of Maternity and Infancy").

The question of the influence of the cinema on the mental and spiritual formation of young people is a theme of extraordinary interest today, not only for the science of education, but also for politics and social relief. The cinema can educate and also, if it is not properly understood, it can educate badly, and this not only in the cultural sense, but also and especially in the political and social sense. Education, in fact begins to reveal itself more and more a political concept inasmuch as it is a *formative act* of consciences, states of mind, sentiments and idealisms.

It is for this reason that the National Institute for the Protection of Maternity and Infancy (known in Italy as the ONMI) created by Fascism to assist mothers and children both morally and materially, considers with particular attention the question of the cinema as a *typically political and national social institution*. This is because it is largely an organ of the social politics of the regime meant to educate the Italians to love family life, to teach mothers the duties and happiness of maternity and to bring infancy to a better understanding of its future.

'We admit that the propaganda which can be made with the film is superior to any other form, whether carried on in the press or through lectures. These are forms of propaganda which do not hold the attention of the public that is too absorbed with the tumultuous life we lead today'. (O.N.M.I. Federation, of Reggio Calabria).

The Institute owing to the operation of the law is faced with certain special tasks relative to the safeguarding and protection of infancy in so far as the cinema is concerned. We may mention the nomination of mothers in censorship committees attached to the ministry of the Interior, the right to demand a special examination of motion pictures not considered suitable for young folk, the right to inquire in order to establish if the regulations regarding the employment of children in cinema studios and the admission of children under 15 to certain spectacles are being observed.

The Institute itself has had occasion to experi-

ment with cinema propaganda for educating the masses in pre-natal and post-natal hygiene. A recent inquiry made by the Institute in collaboration with the I. I. E. C. to learn the effects of the motion picture on young children has allowed us to see, through the replies of about 2500 mothers to an ample questionnaire, what Italian women think on this delicate question.

Finally, the questions to form the agenda of the coming world Teaching and Educational Film Congress have been laid before the presidents of the provincial federations of the organization with the result that it has been possible to gather the views and opinions of politicians, educationists, children's doctors, obstetricians, psychiatrists and students of social science.

"I believe in the usefulness of a systematic introduction of the cinema for teaching, for the development of educational and teaching programmes set forth in the I. I. E. C's scheme for including scholastic courses from primary to higher education. (O. N. M. I. Federation, Grosseto).

The ideas set forth here represent the fruit not of casual inquiry, but experiences directly and indirectly lived through.

HOW THE QUESTION MUST BE STATED. — The problem can be considered from a double point of view, *positive* and *negative*. *Positive* in so far as it refers to a special *active* form of cinematography in the demographic, social hygienic education of the people in general, in the pre-natal and post-natal education of mothers, hygiene for children, treatment to improve the health and mentality of certain categories of children, (weak-minded degenerate children and deaf and dumb). The *negative* point refers to the work that may be done, for the moral protection of children in respect of certain forms of immoral cinema or pictures unsuited for very young children.

POSITIVE ASPECT OF THE PROBLEM. — *Premise.* There is no doubt that the motion picture can and ought to have a most notable *direct and indirect* in-

fluence on the formation of states of mind, ideas and voluntary acts. There is no question nowadays that the animated projection, by appealing especially to the senses penetrates into the fancy and the heart, implants concepts and impressions in the mind, leaves strong memories and impresses images, forms, precepts and warnings on the mind.

We must study therefore what it is best that the cinema should show in order to arrive at certain definite purposes, and also *how* and *where*. We must study the projections in order to see in the effect which we wish to attain are efficacious.

"A proposal having special reference to the physiological and psychological effects of the motion picture might be: in view of the generally receptive, malleable, excitable, imitative and fantastic nature of children, we could make experimental researches with elaborate means and a scrupulous precision of method on the particular effects which the cinema has on children's minds up to a certain age". (O. N. M. I. Federation, Modena).

There is no need to exaggerate. One cannot expect that educational films shall be projected everywhere. Everything must be done in the right place. Nor can we insist that only certain types of picture be made and projected. We must know how to choose arguments and places that are specifically adapted in order to arrive at certain results. We must fix a limit, that of boredom. We must avoid boring and wearying people by insisting on the projection of films which are all right in one place, but unsuitable in another.

The matter has therefore a double aspect, regarding the *content*, and regarding the *place and manner* of the projection.

Let us examine one by one the various forms of film content which interest us in relation to the various forms of education and the special categories of persons for whom such education is intended. There are also the questions referring to the *manner and place* of the carrying out of the education.

DEMOGRAPHIC EDUCATION. — This is a matter of wide and general importance, and should be understood by all categories of individuals and in view of the demographic situation existing in most countries has a national and international side.

There is no need to repeat here what is universally known, that is, that the population drop or demographic decadence manifesting itself in modern nations should be fought with all possible means if we want to safeguard the future of civilization. It is

now generally agreed that apart from combating the *direct* causes of the evil (infantile mortality, lack of hygienic education for the mothers, etc.) the *indirect* causes should also be fought. These include city-crowding, immorality and diminished respect of the family.

The cinema can and must be an extraordinarily efficient instrument for the demographic education of the peoples. It can show with the plastic, fascinating sensitive evidence of the image the deleterious consequences of over-crowding in the cities, stressing at the same time the advantages both physical and moral of country life. It can exalt the tradition of the family, which is the basis of the national life, and hold up to admiration the offspring as the joy of existence, the fount of honour and of human immortality on earth.

"We should make it obligatory on all cinemas to project pictures reproducing all the activities undertaken for improving the physical and moral state of the race.

Taking into account that it is always easier to instruct when we are also entertaining, we can see the necessity of showing pictures which mingle interesting plots and touching incidents in films containing in a simple way the precepts and laws which should regulate the life of an honest family, even if it be a poor family. We should teach the beauty of health and the affections, the healthiness of work. We should teach in a practical fashion all those small rules of hygiene and cleanliness which make for health and strength and improve the spirit". (O. N. M. I. Federation of Agrigento).

It may be that we could follow for this purpose some demonstrative criteria of considerable efficacy already utilized by the press such as graphs indicating race decadence, pictures illustrating future of a nation with a dwindling birth rate, plastic images of the results of shrinking births, etc.. We should, in a word, make a strong impression on the spectators' mentality by means of a symbolic documentation of the present and the future.

EDUCATING THE MOTHERS. — Women can receive much useful maternity instruction by means of the motion picture. They can be educated *spiritually* by projections exalting maternity and the family, educated *technically* in pre-natal and post-natal hygiene. In the first instance, we want general pictures for all types of spectators; in the second case, *specific* films for given categories of women (women in various stages of pregnancy, nurses, workwomen, peasant women; etc.).

The specific motion pictures should be made and projected under the control of competent experts. The O. N. M. I. has already made two such films. One, produced at the beginning of the Institution's activity, proved too technical and disconnected. A second picture, produced in 1933, is largely propaganda for the ONMI itself with a number of technical details. Though a propaganda film for the Institution, it can be usefully shown to mothers in certain circumstances, for it points out to them what the ONMI has done and is doing, and how they may take advantage of its work.

"The propaganda to be carried out among young mothers through lectures and addresses would be extremely useful if supplemented by motion pictures made in child assistance institutions. Pictures ought to show daily treatment to be used for children and nursing mothers". (O. N. M. I. Federation of Trieste).

A third film of a more specifically educational character for mothers is in preparation. The film in question will illustrate the various phases and the various forms of pre-natal and post-natal relief and hygiene. Relief and aid to women employed in industry, to peasant women, the obstetrical consulting clinic, the women's refectory, the crèches, all provide opportunities for proffering advice on the numerous measures taken by Fascism for the benefit of mothers, and on the way to give advice on hygiene, food, nursing and care of infants.

These motion pictures can undoubtedly prove most efficacious and useful for mothers. What is important in this matter is the manner and place where projections are given. We may say at once without waiting to treat the subject in turn that it is not enough to project a film to reach the objects aimed at. We must complete the picture with a clear and simple explanation by experts. A experiment along these lines may be found in a first attempt made last year by the ONMI among the female employees in factories in Lombardy. From time to time, during special conversations of propaganda for hygiene in pregnancy and after the birth of the child, scenes and figures illustrating certain aspects of the question were projected. A doctor completed the work by verbal explanations which proved quite efficacious. More than 10,000 women workers profited very considerably from this form of propaganda.

Education in maternity and all the matters relating to it is a serious and fundamental problem.

INFANCY EDUCATION. — The question of infancy education by means of the cinema is a more delicate

one. Several problems arise at once. It may be asked, to begin with, if the showing of animated projections to children of less than six years is useful from the hygiene and sanitation point of view? Is it not better to show them stills and lantern slides which cause less fatigue? In any case, projections for infants must be short.

In the second place, in view of the receptive and ductile nature of children what type of pictures is best suited for them? The problem has a significance which it is not possible fully to examine here. It will suffice to hint at its aspects and to recall in particular the conclusions arrived at in this connection by Dr. Renshaw of the Faculty of Psychology of the University of Ohio. Dr Renshaw has studied the phenomenon carefully, and has been able to make it clear that children, in the majority of cases, are not able to distinguish between the fiction of the cinema and the reality of life, and that almost always until the age of ten and even after, children make no distinction between fiction and life. The characters of the screen are real for them and true. This may constitute doubtless a positive element in their education by means of the motion picture in the sense that the effect of the film on children is enormous. It can, however, form a negative element in the sense that the over excitement with which they can become affected after witnessing too violent and alarming film scenes may damage their mentalities and disturb them excessively.

We must therefore take especial care that any film we show for children, and particularly for children under 10, is properly educational, without exciting them overmuch. We may use fantastic subjects or fables or unreal tales to remove the idea that the stories and the characters belong to real life.

"If, for example, we show in large characters on the screen after each part of a motion picture a severe disapproval of the vulgar and improper habit of spitting on the floor, and point out the serious dangers which can arise therefrom for the community, or another sentence counselling children to wash their hands before eating, to clean their teeth at least once a day and so on, stressing one or two good hygienic practices, everyone can see how in the end these practices will assist the education, health and good manners of the new generations with tangible results that it is superfluous to enumerate". (O. N. M. I. Federation, Taranto).

In the case which most directly interests us, that is the social and hygienic education of children, it will be perfectly possible to make use of the cinema to illustrate the harmfulness of certain actions and

habits and the dangers which can derive from certain forms of carelessness or neglect (spitting, drinking from unclean receptacles, food, physical exercise, the use and abuse of alcohol and tobacco). We can show the advantages of thrift and insurance, but all must be done with tact and prudence.

A subject which can be treated for adolescents and requires tactful handling refers to sex questions which are directly bound up with the health and vigour of the race. As the President of the ONMI of Turin points out, it is by no means an easy task to address young people on sex matters. A better solution of the difficult may be found in the use of the motion picture. Proper films can be prepared by competent persons. Such pictures must be severe and simple in form and substance. They must be easily comprehensible to all mentalities, and at the same time they must not in any way risk offending modesty or chastity. They should inform young people of all those things which can be a source of danger to their health and welfare. The old custom of hiding sexual matters from young people is hypocritical, while we all know the harm caused to our young folk with the tradition that it is more scandalous to talk of immorality than to be immoral, and that it is not moral to discuss and unmask immoral situations and facts.

Generally speaking, many useful items of information and knowledge can be supplied to young children and youths by means of the cinema, but tact and intuition are necessary if we are to attain the desired results.

EDUCATING CERTAIN CATEGORIES OF YOUNG CHILDREN. — The motion picture can be a most useful means of educating certain categories of abnormal children such as weak-minded, depraved, and deaf and dumb children.

"Motion picture shows have a powerful effect on the imagination of abnormal and vitiated children, in whom it is desirable to arouse sentiments of courage, heroism, patriotism, emulation, desire to work, and loyalty. Pictures containing scenes of violence and love, intrigues, fraud and crime should be omitted". (Royal Reformatory, of S. Maria Capua Vetere).

In the case of psychically abnormal children, experience has shown that the cinema has already been used in some institutions for a number of years. In the Trieste Institute, the inmates derive advantages of a moral and educational nature from witnessing comic pictures calculated to cheer up depressed persons, and also sentimental films. Pictures showing technical, geographical, industrial

and ethnological matter can also interest and benefit. Films of a violent or passionate character or detective and gangster pictures, where the worst instincts of mankind are placed in evidence, are to be considered absolutely taboo.

"There is no doubt of the beneficent result of such spectacles, apart from the fact that permission to attend constitutes a reward for the young offenders or a most efficacious stimulus to do well, while the deprivation of such shows for badly behaved children provides a moral form of punishment which is very effective". (Royal Reformatory, of Bologna).

The cinema, moreover, it is hardly necessary to say, has a very great importance for persons deprived of the sense of hearing. They can in this way acquire a great numbers of perceptions through the sense of sight.

We attribute great importance to the cinema in the educational and especially in the correctional field. It is only to be hoped that the educational film becomes more widely spread and easier of access so as to make a choice of programmes easier for the inmates of reformatories". (Royal Reformatory, of Parma).

For the deaf and dumb it constitutes a factor of the greatest utility, which proves especially instructive in the case of silent films where the plot and story are developed with plenty of gesture and miming, accompanied by sub-titles. Now that the sound and talking film have replaced almost entirely the silent pictures, the cinema has lost a great deal of the special instructional value it had for the deaf and dumb.

If all schools for the deaf and dumb were furnished with first class motion picture apparatus, the education and instruction of the pupils would benefit enormously. Projections should be made specially for the deaf and dumb children who have finished the first two or three years of school.

Thus pupils could also improve their knowledge and perceptions by means of views and aspects of the life of near and distant cities and their surroundings, and modes of dress. In various modern institutes like those of Milan, Rome and Turin, there are cinema halls where the deaf and dumb children can not only be amused with the projections, but can also learn much. They can relate their impressions afterwards to the teacher, writing essays on it in their exercise books.

HYGIENIC SOCIAL EDUCATION IN GENERAL. — Up to now we have referred to what may be done by

means of the cinema for certain classes of individuals. There is however a vast work of education on hygienic and social lines to be carried out for the benefit of all adults by means of properly prepared pictures.

Especially in what concerns the hygiene of the family, woman, and the future of the race, such projections could prove most useful. The gravest problems of individual and social hygiene could in this way be tackled from time to time. For example, the advisability of young people about to marry having themselves examined by a doctor before marriage could be pointed out so as to be certain that no contagious or hereditary disease might endanger the health of the wife or husband or the innocent children who may come, menacing, should the peril mature, the well being of the entire family.

An attempt of the kind was made in 1925 by the late regretted Professor Levi at the First National Congress for the Anti-Tuberculosis Campaign of Naples. Dr Levi clearly and ably illustrated on this occasion the causes, effects and necessary defences against typical scourges of humanity, projecting a motion picture entitled "The Gift of Life", which had been given him by the American Social Hygiene Association.

EDUCATING THE SPECIALIZED PERSONEL OF RELIEF ORGANIZATIONS. — Good results could be obtained through the use of the film in the case of the specialized staffs of institutions taking care of pregnant women, mothers and infants. There will be little difficulty here in attracting and holding the spectators' attention and the pictures can be considered as a mere pedagogic instrument. In this instance we could utilize the films prepared for the education and instruction of the mothers, but the ideal would be to have specific technical pictures, illustrating the various forms of assistance and medical aid to mothers and infants.

"We hold that the use of the cinema has a notable importance for the propaganda of infant hygiene. More than once I have been able to observe the great interest and profit of such projections."

We believe that it would be desirable to prepare a series of films illustrating the principle sides of child rearing in an easy, attractive and persuasive manner for use in schools or at lectures". (O. N. M. I. Federation, of Pisa).

Apart from medical assistance institutions, such pictures could be utilized for the courses of child-rearing run along the lines of those organized by the ONMI in agreement with the National Balilla Association.

PRACTICAL CONSIDERATIONS. — We have so far, it need hardly be said, been dealing with the matter in connection with the *content*, and as regards hygienic social aims desirable in the interest of the strengthening of the race.

As to the manner and place for the projection of such films, it will suffice to point out that, in order to obtain satisfactory results, we should make a larger use of *indirect* than *direct* means. In general, it may be claimed that better results are obtainable by including pathetic or sentimental scenes in an ordinary picture by than inflicting on a variously composed mixed public films, the educational objects of which are immediately patent. Care must be taken when making projections before the public in large cinema halls not to attempt too direct an appeal but to approach the matter by intriguing and stimulating the *interest* through sentimental and spiritual appeals rather than violent films or purely technical pictures.

The attraction of the cinema can be usefully taken advantage of for the ends of hygienic education and propaganda, especially if we avoid artificial rhetoric such as might discredit the idea and offend the instinctive good sense and practical spirit of our people". (O. N. M. I. Federation, of Mantua).

Certainly, this kind of picture can and must have its value if projected before a specialized public. The experiment which the ONMI has started in workshops is not without its importance in this respect. Nor is there any reason why special travelling cinemas should not make occasional projections in country districts or in workmen's sections of towns where the spectator's state of mind differs somewhat from that of the ordinary cinema hall public. Films suited to the mentality of infants and youths might also be projected in the schools. In cases like these, prudence must be used, however, and it should always be borne in mind that nothing educates better than that which appeals to the mind, the fancy and the heart.

NEGATIVE ASPECT OF THE QUESTION. — In order to obtain good results in moral, hygienic and demographic education, it is not enough, as we have said, to concern oneself with what it is *advisable* to project, but it is also necessary to take into consideration what is *bad* and *unadvisable* to project, especially before certain classes of persons.

The problem of the limits of cinema censorship is certainly not a new one, but this is not the place to go into it in all its delicate aspects which include

some of an artistic economic and practical character. At the same, we should like to make it plain that if it is desired to obtain really satisfactory results in a campaign against a dwindling birth-rate, the rural exodus and various other social dangers which menace the health of the race, it is necessary and urgent: in the first place, to increase the pre-view censorship on all films intended for public projection, in the second place, limit the admission of children under sixteen to a few truly educational spectacles, and, in the third place, to forbid the cinema entirely — except in the case of special performances for children — to children under the age of 14, even if accompanied by adults.

It is not old fashioned dictates of a rigorous morality which impose such a decision. Any one among us, whether father or mother, or just a person gifted with ordinary observation powers, can see for him or herself the pernicious influence which the greater part of motion picture spectacles exercise on the minds of boys and girls, and indeed even often on adults. A slow progressive degeneration of morals and ideals results therefrom. The excitement of the senses provoked by erotic scenes, the stressing of immoral and improper facts and incidents, and especially the sight of things which suggest a false and absurd conception of life constitute so many deleterious elements for moral social and civilized education, if it is true that it is from the interior ideal which each of us has of life that practical human activity takes its lines and forms.

"The cinema, as a means of moral and hygiene propaganda, must be helped by the State, the communes and public bodies in general which have a educative purpose. The State could grant for the purpose considerable and adequate funds, while an obligation might be imposed on the communes and educational bodies to provide cinema education at their own expense". (O.N.M.I. Federation, of Messina).

We must therefore consider it to be urgent and indispensable that a wider censorship be exercised by the authorities on films, and that children under

16 be excluded — as is already prescribed by Italian law — with greater rigour from certain kinds of shows, and that children of 14 be absolutely forbidden the cinema.

The *Opera Maternità ed Infanzia* (ONMI) has examined the question on other occasions. At the recent international Infancy Congress held at Stockholm, the representative of the ONMI put forward the following resolution:

"In view of the fact that the cinema has a great psychological influence on children (as a symposium recently organized by the ONMI among thousands of Italian mothers proves).

"In consideration that almost the entire output of films is not suited to arouse healthy sentiments in young children, who ought to be able to draw useful concepts of moral, family, hygienic cultural education from the motion picture.

"It is recommended that special halls be instituted in connection with ordinary cinemas for the projection of special children's pictures, or at least the institution of special shows for children.

"It is urged that the prohibition to enter ordinary cinemas be extended to children under 14, even when accompanied".

There is no need to give a long explanation of the content of the foregoing resolution. It will suffice to point out that the 14 year old age limit was suggested by the existing Italian penal law, which fixes that age as being the age under which there is no complete human capacity to understand and to will.

The *Opera Nazionale Maternità ed Infanzia* insists with the participants at the forthcoming International Teaching and Education Film Congress on the prime necessity of facing the problem of the negative factor constituted by ordinary theatrical films in modern life. The question ought to be hurried on towards a solution, for it constitutes one of the factors having considerable weight in the present critical phase of our civilization which must be preserved, and can be so preserved if the fundamental values of life, the race and society are protected and exalted in all the manifestations of the human spirit.

HYGIENE, CONTAGIOUS DISEASES AND GENERAL PROPHYLACTIC MEASURES

By Dr ESTER BONOM, Directress of the Mothers' Dispensary of Genoa.

It is to be regretted that publications on the educational cinema do not exist in Italy, or if they do exist, remain unknown. This is a pity because our country can boast of being to the front in this matter, though only a few people are aware of it.

In fact, just as the *Omegna* was the first important producer of educational films in the department of natural science, and was followed by other admirable and patient producers, so we owe to the *Ambrosio* institute of Turin now absorbed by the LUCE Institute the technical perfection of numerous educational films.

The Italian *Pathe Baby Co* is responsible for the substitution of the very costly standard cinema camera used in theatrical pictures with the reduced size apparatus for use in schools. The same company has also put a type of non-inflammable film on the market, which costs much less than ordinary film. As the result of an arrangement made with the Italian LUCE Institute, the same company has started a film repository of a purely national character. The technical department is in charge of Commendatore Ristori, while Professor Guzzanti looks after the scientific side. The cinema archive is exclusively didactic.

It is useless to waste words in stressing the educational value of this complementary didactic aid. Everyone knows or feels that the educational cinema, without taking the place of the book, and still less of the teacher, forms an admirable complementary course for the former, while it assists the latter. It facilitates and quickens the understanding of arguments, completing the details which have necessarily to be omitted from the scholastic text-book and fixing in the minds of the pupils, through the effect of the images seen, a pictured memory of the subject treated.

It is therefore to be hoped that all schools and all centres of culture in general will install cinema apparatus and that precious and patient *régisseurs* like those of the *Omegna* be encouraged and assisted in producing more and better educational films.

The motion picture will prove of extraordinary importance in all relief and aid organizations from the O. N. M. Maternity Society to courses for nurses,

assistant sanitary inspectors, school visitors, etc., in all cases, in fact where the scientific knowledge of the pupil is limited. Not less is its importance in Fascist cultural institutes, where, together with programmes of an artistic and musical nature, demonstration lectures are given on trade and social diseases (saturnism, alcoholism, tuberculosis, venereal disease, etc.) lectures which could and ought to be repeated in workshops and factories where there are many operatives.

In factories employing female labour, films should be projected showing the dangers of certain occupations and positions for women during the period of gestation, the harm liable to result from lack of hygienic measures and personal cleanliness, the necessity of pure food clean kitchens, etc.

With regard to university institutes, we may point out that many science studios, clinics, medical, surgical laboratories and specialists have already substituted lantern slides and still projections by film apparatus. The slow motion projector is also used in these places, and the students see with this means many masterpieces of scientific cinematography.

In Genoa, the Institute of General Pathology has a film archive of about 80 pictures dealing with infectious micro-organisms, infectious diseases; alcaloid poisoning through cocaine, morphia; hormones, etc.

The institutes of Pharmacology, Physiology, Anatomy, and the Medical Clinic are all provided with cinema apparatus, and often make use of this valuable didactic aid. One of the firms which sell well known and approved pharmaceutical products, the Bayer company has had produced for it magnificent motion pictures which it presents to university institute. We may mention that splendid masterpieces of motion picture technique, the film on the hormones, the thyroid, the surrenal and other glands.

Unless the writer is in error, we have no films on child upbringing. A picture on this subject would be of the greatest importance not only for the university teacher, but especially for Child Rearing Courses given for dispensary doctors and private individuals who frequent the private dispensaries of the OMN.

Films of this kind should also be shown for propaganda purposes in ordinary picture halls.

THE WORKMEN'S LEISURE TIME INSTITUTION (DOPOLAVORO) AND THE EDUCATIONAL CINEMA

THE Workmen's Leisure Time Institution, known in Italy and beyond her frontiers as the *Opera Nazionale Dopolavoro* (literally : National After-Work Corporation) is engaged in carrying out a vast and complex work within the orbit of the activities of the regime. This work includes relief of various kinds, insurance, physical training, improved methods of labour, popular culture, excursions, touring, etc. The corporation of institution makes great use of the cinema in all its manifestations, considering it to be an extremely efficacious means of education and propaganda, and the *Dopolavoro* is glad to take part in the forthcoming International Congress which it hopes will give us those explanations and those instructions which will enable the *Dopolavoro* to go on increasing and developing its activities in the domain of cinematography.

The *Dopolavoro* does not, of course, take part in the Congress with the idea of discussing the use of the motion picture in individual and social education from the theoretical point of view, and still less with the idea of making a scientific examination of its utilization in the teaching field.

The intention is to deal with the practical use of the cinema by the Workmen's Leisure Time Institution, and to give a short and schematic report of what it has done and what it still intends to do.

The cinematograph is considered as an essential element in its programme, because it covers every field from politics to science, from the news of the day to creative efforts,

and also because it exercises a great fascination over the masses and prepares them for the greatest possible understanding of modern life and the environment in which they live.

It represents, therefore, not only the most desirable and acceptable form of entertainment, but also a powerful means of raising the moral and spiritual outlook.

The Cinematograph in the Work of the Dopolavoro. The first statesman to recognise the great importance of the cinematograph was Benito Mussolini. He realized its utility as a means of cultural and national propaganda and as a social instrument, and gave Italy the first Institute for the production of cultural, documentary and scientific films, and facilitated the constitution of the International Institute of the Educational Cinema by giving it a suitable seat.

The National L.U.C.E. Institute is the organization which, in Italy, co-ordinates and regulates the educational production of the cinema. The O.N.D. (*Opera Nazionale Dopolavoro*) limits its activities in this field to the spread and justification of the cinema as a means of social and individual education and as a politico-artistic-educational propaganda.

The Cinema and the Worker's Recreation. The rest-time of the worker, whether he be employed or workman, is a relatively new problem in social campaigns, and has come into being in consequence of the reduction of the working day to eight hours.

The Fascist regime was the first to solve this problem by creating the *Opera Nazionale Dopolavoro*, whose task is to employ the free time of the worker in wholesome, entertaining diversions and to utilize it for the physical, intellectual and moral improvement of all who labour.

Among the more important after-work activities are those spectacles which act more on the heart than on the mind and are addressed more to the imagination than to the reasoning powers.

The cinematograph is a form of spectacle which has a really exceptional force in this way and, as we have said, exercises a great fascination over the masses, which is increased by its very technical defects. The lack of relief and the image which remains flat and colourless makes the appeal to the imagination even greater. In fact, the personages of the screen, their sentiments, and their acts impose themselves with a force that is without precedent, and has never been reached by any other form of spectacle.

It is a well known fact that the problem of the education of the working class came into being at the same time as the development of machinery and the mechanization of labour, which, nullifying and reducing the worker's spirit of initiative, made an automaton of him, turned him into a sort of machine and reduced his intellectual capacity.

It is obvious that, by bringing the worker in his hours of repose into contact with spectacles that arouse his interest and stir his emotions, we at once obtain a compensation for the mechanism of labour.

The cinema is the very best means to this end, because the joining of image to image and the deduction generated by the understanding of their succession implies a mental effort of the highest importance, which is unnecessary in other spectacles where the action is continually justified and made clear, even in its most insignificant points, by the very elements that take part in it.

The cinema has an even wider-reaching influence on the employee for it finds in

him a more fertile and better prepared ground to work on, due to his greater cultural knowledge and different degree of education.

In the recreation of all workers without distinction, the cinema stands as a potent aid to the mental and spiritual force.

Its benefits are not restricted to the duration of the pictures, which remain in the memory and influence the imagination, carrying on a work of clarification and justification and generating the desire to make known the emotions experienced to others. They act as a powerful leaven, a fertile seed which ferments in the inner arid waste and makes it fruitful.

The effort to recount what has been seen and heard, to make it live again in words, to adapt it to one's own sensibilities and justify it by one's own mentality, forms a pleasing psychic state, an internal labour which almost gives the impression of taking part in the mysteries of artistic creation. It is a work that transports, enchants, takes possession of us and fills us more and more with a spiritual essence; it becomes a powerful moving force, and renews the soul and ennobles the mind.

The Cinematographic Organization of the O. N. D. In order to be able to make use of the cinematograph in the recreation of the working class, the O.N.D. first made a Convention with the Association of the Spectacle Industry, which allows it to make use of all the cinemas in the kingdom at considerably reduced prices for tickets.

Secondly, as a direct action of its own, it encouraged the installation of cinematograph apparatus in the different premises of the *Dopolavoro*, and had all the cinemas and halls which had been opened by private initiative for educational purposes brought under its jurisdiction, with the object of directing their activities more satisfactorily, unifying and co-ordinating them with its own.

In order to facilitate the increment of the *Dopolavoro* cinemas and make sure that

they had economic projection apparatus of the type required by the O.N.D., a competition was opened among Italian firms for the supply of these apparatuses. The cordial collaboration of the National L.U.C.E. Institute was accepted for the supply of educational films, while those of a recreational and artistic order were procured from the private production industry, special agreements being stipulated for the renting of films at reduced rates.

In a short time, therefore, no fewer than 748 new cinema halls were opened, and the *Dopolavoro* was assured a rich and varied production chosen from among the best films produced in Italy and abroad.

It is calculated that the cinematograph halls of the *Dopolavoro* projected 28,575 different programmes in 1932 alone.

In addition to the regular halls, the *Dopolavoro* has also a number of portable apparatuses, 722 in all, which are used for propaganda purposes in different regions and in the local premises of the *Dopolavoro*, especially in country and mountain centres. The cinematograph activities are not, in fact, confined to projections in halls, but are carried by travelling cinemas to every centre, even the smallest, where open-air spectacles of cultural-artistic-educational propaganda are given every week.

We shall see, further on, how the O.N.D.'s cinematographic activities in these country districts are carried on according to special criteria which guarantee their efficacy and eliminate all inconveniences.

The Use of the Cinematograph by the O. N. D. for National Education. The L.U.C.E. films illustrating Italian life are included in all the cinematograph spectacles given by the O.N.D.

These films, which are living documents of the regenerated life of Italy, are at the very base of the O.N.D.'s action for the encouragement of national education, which, according to the Fascist idea, means at one and the same time the aesthetic and moral,

the individual and social, human and universal education.

These films arouse great interest in the crowds of spectators and carry on a beneficent work of propaganda that is even more efficacious than that done by newspapers, because they bring everything that happens in the nation before the eyes of the people, without comment.

This propaganda, made by the bare presentation of facts without the addition of rhetoric or superfluous comment, is a true and living documentation of the creative activities of the Fascist State, and it not only serves to keep the spectator informed as to what is being done and to enrich his cultural acquirements, but it also and mainly helps him to take part in the life of his country.

It is obvious that if the individual is to feel himself the citizen of his State, he must take part in its life and have a fairly exact knowledge of what that life is.

The fundamental base of all national education is just this of calling the attention of the worker to the social aggregate of which he is a part, because the more alive and active his conception of the social body, the stronger and more active will be his agreement with it.

This is the reason why the illustration of the work of the regime, the great manifestations that are being developed in the nation, the expressions of patriotic feeling, faithfully collected and faithfully reproduced and put into contact with the people by means of the cinematograph, become powerful elements for the solidification of the national sentiment and, with it, of the social body.

An irrefutable proof of this is the interest aroused in the working class by the L.U.C.E. documentary films. The working class wants to live the life that surrounds it in every one of its manifestations, social, political, military etc., and as it cannot, it finds satisfaction for this lively desire in the film, which gives it such a vivid presentment of that life that it has the impression of taking part in it.

There is also a very useful fusion of spectacle and spectator in the cinematograph halls of the O.N.D. The projections there are not simple, cold explanations and representations of works, but are living, powerful documents of the social life of Italy and of its Fascist faith.

The *Dopolavoro* public is for the greater part a homogeneous public whose various parts know one another, so that the spectacle has a greater educational power, since the amicable discussions it arouses facilitate its assimilation.

With the object of completing the educational activities whose scope is to keep the national feeling alive, the O.N.D. chooses more particularly ethnographical films, documentary panoramic films and all those which mirror the qualities, picturesque beauty and intimate life of the Italian people.

The Use of Cinematography by the O. N. D. for Popular Culture. The aim of the O.N.D. is not to fill the people's mind with a lot of arid knowledge, and still less to involve it in a labyrinth of philosophical disquisitions, and the cultural film which is closely connected with the aesthetic emotions therefore forms a large part of its programmes.

The criterion guiding the choice of these films is a catholic one, and includes all those films which are an artistic success. Preference is given, however, to local films of a historical or geographical nature, documentary and scientific films and those which give force to the moral energies of man.

Technical films connected with the various arts and trades are largely used in vocational teaching. The projection of such films is accompanied by the comments of the teacher, who explains and makes clear the documentary process of the film, and makes use of it to facilitate the understanding of his lesson.

The precision of the details and the play of the close ups in these films are not only of great teaching value but they also exercise a great influence on the student.

The use of the cinematograph in the

skilled trades is of great use, because by its means it is possible to show all the intimate details of the manufactured object and their respective values, and to call the attention of the spectator to them.

In Italy, where the arts and crafts have a glorious tradition and are still flourishing, propaganda by means of the film is indispensable, and the O.N.D. makes a special use of it for this purpose.

The O.N.D. includes industrial films among those of a cultural order, taking the films which illustrate the various Italian industries and their respective products, with the object of not only spreading a knowledge of the different national industries and therefore of the national production, but also of aiding young people in the choice of a trade or occupation.

Up to a short time ago, it happened, especially in Italy, that the son generally elected to follow the same trade as his father. With the advent of machinery, the choice of an occupation has become one of the most serious problems that young people and their families have to face. In America, now, they have established special schools for vocational guidance, where all young people may make experiments to discover their own aptitudes.

A great contribution has been made by the cinematograph to the solution of this problem, by revealing to young people and their families the different multiple activities of humanity and enlarging their field of knowledge, and therefore also their range of choice. This problem is of great interest also to the O.N.D., which organizes visits to manufacturing workshops, for the purpose of aiding its members in the choice of a trade.

The Use of the Cinematograph for the O. N. D's Hygienic Propaganda. Hygiene is one of the essential problems of the social body, because it is not so much a question of making the rules known as of creating a hygienic conscience. What is necessary is that the rules become an essential part of

the psychological organism, that they are really felt.

The cinematograph, which makes ideas clear and easily grasped, facilitates this process of assimilation enormously.

Hygienic propaganda by means of the cinema must not, however, be done by strictly scientific, but by artistic films; and the close ups and details of these should be worked out with great care.

We said that one of the potent levers of the cinematograph is imitation, and the producer of hygienic films should utilise this quality to the utmost.

A production of ordinary films with hygienic rules incorporated in them, not presented deliberately but more as habits of the persons in the films, would give much better results than do the films we have.

For hygienic propaganda in workshops, and especially with regard to working positions, the O.N.D. has made use of the films produced for the purpose; but has found it well to use also certain details and scenes from ordinary films.

Unfortunately, however, the ordinary production takes no account of hygiene, and there is no doubt that if directors, when working out the details of a film, were to consider the action it exercises over the masses and to insert hygienic rules wherever possible, the cinema would render great service to social life. As it does, for instance, to fashion, by the attention directors pay to aesthetic detail in the dressing of the women.

The O.N.D.'s hygienic propaganda is completed by its activities in connection with physical education. In this field also the cinematograph is used for teaching and propaganda. The O.N.D. has succeeded in making great progress in physical education, as is proved by its Sports Meetings, Competitions, Excursionist Meetings and the Gymnastic Competition which is held in Rome every July, and in which about 10,000 Dopolavorists chosen from among the best of every province take part.

The Use of the Cinema for Social Welfare Propaganda.

The Fascist Regime has given a great impulse to Social Welfare Institutions. The propaganda on this subject is made by the O.N.D. through the cinematograph in two different ways, indirect and direct. By the first means it endeavours to arouse a sense of responsibility in each of its members, since it is obvious that a man who feels the responsibility of his function in the social body and especially in regard to the family is well on the way to make provision for the future. By the second means, it illustrates the utility of provision for the future by means of short documentary films.

It must be admitted that in this field also production ought to follow criteria that are more in accordance with the sensibilities of the masses.

Generally speaking, prudential propaganda is done by films which make their propagandist and advertisement aims too evident, and their effect is therefore proportionately injured.

In our opinion, if the idea of provision for the future is really to take root and grow in the mind of the masses, as little use as possible should be made of advertisement, and great use, instead, should be made of dramatic situations.

Human experience is so vast that it can supply an artist with numbers of subjects and arguments to make this form of propaganda lively, dramatic and impressive: families involved in ruin, lives completely broken up, comfort that disappears. All the infinite dramas of human labour could give stupendous subjects for films, which would inevitably arouse a desire to provide for the future.

The O.N.D. therefore preferred to make use of the indirect method, and to use all those films which are likely to awaken in the spectator that sense of responsibility which every man should have, towards himself, his family and the State.

The Cinema and the Rural Dopolavoro. In country organizations of the *Dopolavoro*, cinematograph activities are subjected to special vigilance, since it is well known that it is not desirable to show all films in farming centres, and that the greatest caution is needed in the choice of the films shown.

In country life, the very power of the film would bring about an effect opposite to that desired, if it were not used with the greatest circumspection. It has, in fact, already done much to bring about a recrudescence of the phenomenon of gravitation to the town.

If the cinema, by bringing the peasant into contact with town life, has created new needs in him and driven him to the town, there is nothing to prevent it from sending him back to the land.

In fact, the O.N.D., in keeping with the tendency of the Regime, has been carrying on a vast campaign against the tendency to flock to the town; and if it has succeeded in improving the civic life of small rural centres by the institution of the rural *Dopolavoro*, on the one hand, it has also, on the other, carried out an active propaganda by means of the cinema to make the conditions of country life appreciated.

It was thought advisable, at a certain point, to bring back to life the traditions of each little village, with its music and songs, its dances and customs. By bringing these traditions into honour again, the simple life of the country has also increased in value, and country people are becoming more attached to the land.

The cinematograph projections organized by the O.N.D. in these centres are always mixed with programmes of popular songs and music. The films of the L.U.C.E. Institute illustrating the different ethnical Italian regions have always been completed by spectacles of the dances and songs of each particular region.

We may mention here the experiments made at the "Supercinema" of Rome with the film "*Sentinel of the Fatherland*", in which the Choral Associations of Friuli took

part, accompanying the projection with their songs and filling the intervals with exhibitions of the characteristic traditional dances of Friuli; and the "*Sunny Romagna*" film which was given at the "Quirino" in Rome, with the participation of singers of Romagna.

They were typical and characteristic spectacles of real rural propaganda, which do justice to the picturesqueness of the places and at the same time to the wholesomeness of rural life and its eternal beauty.

When the sound film came to stay, the O.N.D. at once endeavoured to encourage the inclusion of the characteristic elements of country life in these films; and sent a letter to all the producing houses in Rome, putting the organization at their service for the utilization of popular traditions. The L.U.C.E. Institute, the "Cines" and others subscribed to the project with the greatest enthusiasm.

It would take too much space to give a list of all the films in which the popular groups of the O.N.D. have taken part, and we will therefore give only one as an example, namely, the Sicilian *Ninna Nanna* which was executed by the singers of Etna.

As soon as the production was ready, the O.N.D. made a widespread use of it in agricultural centres, thus realizing its object of making clear the value of country life.

The Use of the Cinema for the Agricultural Propaganda of the O.N.D. It may be said that this propaganda by means of the film is being made with the same criteria; and it will undoubtedly be intensified now that the Technical Council of National Agricultural Cinematography, which is attached to the L. U. C. E. Institute, is going to carry out some short metre and talking films,

The important thing in this propaganda is to overcome the stubbornness of the peasant, who is bound to tradition and is by nature suspicious and diffident. It is a real work of penetration and conviction, which only the cinema can carry out satis-

factorily, whether as regards modern systems of cultivation, the criteria on which modern agriculture is based or the rules governing agricultural hygiene.

It is very difficult to convince the peasant. He lives an isolated existence, as a rule, and all his work is connected with his cultivations and his love of the land. He has no faith in anything but the land; it is the only thing in which he believes. Bound as he is to a whole cartload of superstitions, he rejects *a priori* any teaching, he does not yield to anything but experience, and is the enemy of experiment. He needs to see, to be convinced, to make sure.

A knowledge of these facts led the O. N. D. to make use, for its propaganda, of those films which, in addition to rules that can be taught, were of such a character as to arouse the interest of the peasant and therefore to make him put faith in their teaching.

The Amateur Cinema in the Opera Nazionale Dopolavoro.

To all these professional activities, we must add the amateur cinematograph activity, which is making great strides in consequence of its special qualities and the interest it arouses in the great mass of Dopolavoro men.

The amateur cinema, the importance of which is beyond question, forms a vast and essentially typical means of collecting the elements of the civic life of a people. It may be considered as a documentation of the less apparent manifestations of social life.

Brought into the family and the premises of the *Dopolavoro* as a means of diversion, it was at once transformed into a means of education on account of the new world it reveals and because it gives the possibility to those who make use of it, of collecting

perfectly new aspects of things and also of seeing themselves in their every movement, from the simplest to the most studied.

The possibilities of amateur cinematography are, in fact, infinite, and, in order to encourage its development in Italy, the O. N. D. formed special sections for the purpose in every branch of the *Dopolavoro* for the taking of films from life and for *Dopolavoro* documentation.

One of these Associations, which served as an experiment for the whole of the *Dopolavoro* organization, is the CITO of Turin, which has given magnificent results in the course of a few months, producing seven documentary films of great interest.

In accordance with measures that have been recently issued, all branches of the *Dopolavoro* are to deal in amateur cinematography and to give the greatest possible increment to the production of documentary films.

Conclusion.

The utmost importance is given to cinematography in the O. N. D. as we have shown. It is used in every field, as a means of propaganda, as a recreation, as a means of culture, and as a scientific, instructive and teaching means.

For all that, however, we are only at the beginning, for the field of operations increases day by day, just as the work grows daily more intense; and for the O. N. D. each new point reached means a stepping-stone to another.

Fascism never rests, nor has it any pre-established programmes. Keeping forever to the living reality, it acts for the moment and is eternally renewed. It is the miracle of eternal youth, which we owe to our Duce, who makes us participate in his spirit, in his grand ideas and in his universality.

CINEMATOGRAPHY AND THE NEGLECTED CHILD

By

Lucy Clarke Simonson.

IT is with the greatest satisfaction that I have learned of the proposed first International Congress for Educational and Instructional Cinematography. I believe that this subject, so important in its bearing on child life, is about to come into its own, and I rejoice at the prospect.

While complying with the request of the Director, Dr. LUCIANO DE FEO, I doubt if I can add anything of great value to the profound contributions of leading educators the world over. I can only tell of my personal experience as a New York City teacher of truant and delinquent girls and boys.

For several years it was my privilege to teach in the Shelter maintained by the Bronx Society for the Prevention of Cruelty to Children in connection with the Children's Court. There I daily met boys and girls who had come from homes disrupted through sickness, death or crime; others who had found crowded home conditions unbearable and had broken away from parental restraint; boys who had yielded to their longing for pleasure by thieving; truants either through mental incapacity for the work of the school room, or through natural restlessness which took them to the street bent on mischief; psychopathic cases that had been brought in because of uncontrolled acts, as well as subnormal and feeble-minded children, the misfits in home and school; boys who had run away from homes in neighboring cities; all ages from six to sixteen, all races, all conditions of mind and spirit; transients all of them, waiting to have their cases adjusted in the juvenile court.

Besides teaching at the Shelter, I had charge of the Visual Instruction in a Boys' Probationary School in Manhattan. Here we used the Fox Films as well as lantern slides provided by city museums and the State of New York.

Some one has said that the average neglected boy of the city "serves his time in the public school, but obtains his education on the street". My experience leads me to amend this statement by substituting *in motion pictures houses* for "on the street". Of the boys brought into the Children's Court for stealing, nine out of ten told us quite frankly that "they stole to get money to go to the movies". In the heart of a big city where home life is often cramped, dull and unnatural, the cinema affords color, excitement and relief from the monotony of daily existence, and becomes a powerful influence on the growing child.

We find that attendance on cheap "movies" with lurid, sensational pictures has been the very life of many of our boys. Here they are fed up on "funnies", grotesque and overdrawn, or on the "slick guy" who "gyms" and gets away with it. So they get little of the right ideals of conduct and scant material out of which real heroes can be made.

We believe that pictures should show wrong-doing in its ugliness and in its final failures and horrible results. When crime is made hideous, not attractive and successful, our boys will get the correct reaction.

In our films on Current History I have

been pleased to notice that, although at first disappointment was expressed, that they were not to see the "funnies", they later frankly said that they preferred such pictures as "Poland Reborn", "Mussolini" and "Flying to the North Pole".

Boys who had stolen learned through such pictures the honor of striving for great achievements, and that things that come easily are often of little lasting value. Their oft repeated question, "Why work when it's so much easier to steal?" was thus answered effectively.

I have great faith in both the film and the still picture as strong elements in spiritual and intellectual elevation. An illustration from real life at the Court School may be interesting.

We were having pictures illustrating Longfellow's poem "The Courtship of Miles Standish". We were at the climax of the story. John Alden and Priscilla were in the church about to be married when Standish the rival, whom all thought dead, appeared at the door.

At this point I asked the boys the question, "What do you think Standish did?"

Ans. 1. "He drew a knife on Alden!"

Ans. 2. "He drew a gun on him!"

Ans. 3. "No, teacher", he said "the best man wins".

At the close of the pictures when asked what part of the story they liked best, all agreed they liked the part when Standish came back and "didn't bust up the wedding".

For the boy who has run away from the restraint of home or who has tired of school, films showing the hardships of great explorers, the patience of the scientist, the struggles of many a world leader for an education, — can awaken a new interest in life and a determination to *strive* and win out.

A word as to the comparative value of fixed and moving pictures. We have found that for the child with a slow mind, poor reading ability and limited apperceptive basis, the still pictures are often more satis-

fying. Such a child has more opportunity to compare and ask questions, — a slide can be recalled easily, viewed again and an obscure point cleared up.

Our street boys call the fixed pictures "de stiffs" in contrast to "de movies". We have been surprised to find that some children prefer them, saying, "The movies are too quick, we can't see through them".

Many children come from narrow and contracted homes where ignorant parents are too intent on the struggle for existence to be of help intellectually. Pictures stimulate such minds, wake them up mentally and lead them into bigger places where imagination is quickened and vision enlarged. Then they begin to ask earnest questions about the vast universe of which they know so little.

To illustrate; — One day a boy asked the question, "What are stars, teacher"? Before replying. I put the question to the class and had the following strange answers; "Diamonds", "kites", "dead people", "torches of angels" "peek holes in the sky that God looks down at us through", "buds".

The last answer caused a perplexed look on my part, and brought out further information from another boy.

"He means bugs, teacher".

"Sure, teacher", said boy number one "de bugs wid de light". (Fire-flies).

The amazement and reverence which such children show when introduced for the first time to the facts of the vastness of the universe and the orderly movements of the heavenly bodies are a revelation. How greatly the cinema aids in such subjects.

We have found that our unfortunate girls of coarse manners and hardened natures are uplifted by the showing of rare films depicting happy, refined homes. Their own are so often disrupted by dissension and crime, that they respond intensely to the showing of love, sweetness and beauty of which they are cruelly deprived. So, for the time being, the great black gaps in their own lives are filled, and ideals for the future are born.

The cinema, in depicting children of other nations, — their lives and their sports, is a powerful aid as “an instrument for bringing about reciprocal knowledge and understanding” of the peoples of the world. It is much easier to teach youths than adults the possibility of “peace on earth” and “good-will toward men”.

“The pen is mightier than the sword” and the picture is mightier than the pen. May this Congress through pen and picture contribute mightily in the solution of the great world problems of today!

* * *

(*Editorial Note*). The life of the child vagabond the Russian *besprisonny*, in literature, has always had a particular fascination for all nations. He is always considered more or less an outlaw who, like the gypsies, roams the world as he will, a joyous or tragic figure. He lives his days in the sun and though an unknown death may await him in the mud of some ditch, fear is not the companion of his solitude.

Yet the fate of the abandoned child vagabond is the saddest stain upon the face of our supposedly civilized age. These children who have never known the kiss, and caress of the mother, who perhaps have never learnt to smile, who are driven to crime, to petty theft, by the sheer necessity of hunger, will one day know the sex urge solely in its most primordial sense, as a simple affirmation of brutality and devoid of all joy. They will perhaps only be conscious of a single sentiment towards life that of hatred — hatred towards a society which did not know to defend them.

This problem has always been of major importance to the students of social problems in all countries of the world. The Juvenile Courts have everywhere been multiplied in order that the child criminal, who in the majority of cases, is driven to crime by necessity, may be spared the shame of public condemnation. Prevention Institutions have likewise interested themselves particularly in the matter; the cinema has always striven to keep these children in the public mind by depicting them on the screen in touching and realistic pictures even when it did not seek, as in “The Way of Life”, the powerful Russian film, to indicate the possibility of their social redemption by work. This does not suffice. As Lucy Clarke Simonson observes, it is necessary that the cinema should become for them a weapon and a means of culture and development.

The observations of our contributor, which often display a spirit of real poetry, show us the soul of the vagabond and abandoned child how he aspires to the life which he does not know, which is beyond his horizon, but which he has the right, as a being created by God, both to know and to possess.

Many problems arise here, however, for the cinema. Which is the type of film most likely to interest the vagabond child and to give him a more serene conception of life — to teach him to know and to love work and duty, the two cardinal essentials of present and future history? Which is the best means of gathering these little outlaws about the screen?

Philanthropic movements and their auxiliary institutions are multiplying throughout the world, but they will always be insufficient for the crying need which grows daily greater. It is therefore necessary that an effort be made without delay, and it is the cinema which has the greatest possibility of becoming the important factor in this great work.

THE CINEMA AND EDUCATION

By

Laura Dreyfus-Barney.

PRESIDENT OF THE CINEMA AND RADIO COMMISSION OF THE INTERNATIONAL COUNCIL OF WOMEN.

CINEMA and radio are assuming every day a more and more important place in the question of education. It is worth illustrating what has been attempted and what still remains too be done in this field.

Cinema and Teaching. The motion picture is everywhere admitted now as "a complementary aid to teaching". Its purpose is to illustrate in a precise way a given lesson, to make an impression on young spirits, stressing clearly what they should retain in their memories.

In order to obtain the effect aimed at, the teacher must have: an exact knowledge of the way to use the cinema, a free choice in the matter of pictures, a clear understanding of the necessities for such explanations as he must give before or after the projection, as the case may be.

It is also necessary that he should know how to make a wise use of the slow motion projector, close-ups and stopping the running of the film. Since the way of showing events in certain pictures does not correspond with reality, the teacher must assist the pupil in distinguishing what is fact and what has been artificially prepared.

The post-scholastic film which is intended for minds already more formed has less need of didactic explanations.

Teachers prefer stills and lantern slides for very small children.

The organization of the scholastic cinema and the coordination of the problems which arise in connection with it are matters which engage the study and activity of the Inter-

national Institute of Educational Cinematography in Rome. They are matters round which the efforts and experience of several countries are centred.

In Austria, the *Urania* Society, which is recognized as having a public utility qualification, counts some 50,000 members in Vienna, and displays great activity in its work for education and teaching by means of the motion picture. The society owns a vast building which contains eight halls that can be used for shows and projections and evening schools go on regularly. The projections include a long cultural picture and short educational films generally produced by the *Urania* itself. It has a renting service for schools clubs, etc., and loans out the necessary pictures. It uses from four to five million metres of film per year.

In the United States, there are well organized institutions of this kind. All the leading universities use the motion picture, Harvard, Yale (which has some fine stereoscopic films), etc. Information bureaux have been established in the large cities for visual teaching and their news reports are often regularly transmitted to the papers and reviews which ask for them.

The results of the symposia and researches made by the Payne Fund will be published this year. This committee was formed to study the effect of the motion picture on children. The International Institute of Teachers' College will organize a world inquiry on the effects obtained by the use of the motion picture.

In various scholastic centres of the United

States, various observations have been made proving the importance of the teaching film. Dr Pritchett believes that out of one hundred words in common use, sixty are unknown to the pupils of culture centres, and Miss Elde Merton assistant superintendent at the Wisconsin elementary schools, has stated that only 50 per cent of teaching is assimilated. According to Mr C. F. Hobard, the only possible remedy for this state of things is the use of means appealing to the senses, especially the cinema.

A report issued in August 1932 shows that there were at that date 640 educational films in preparation. The number is certainly larger now since the National Academy of Visual Instruction and the Visual Department of the National Education Association have merged in order to give a fresh impulse to visual teaching and to coordinate for that end the various cine-educational units in the United States.

At Barcelona, a course of cinematographic culture has been founded, and an institute will come into existence to carry on such studies. In France and North Africa, the educational cinema depends on regional and departmental bureaux. Many important centres possess film repositories for the use of schools. The Ministry of Public Instruction in Paris, the Ministries of Fine Arts and Agriculture, the Pedagogic Museum, etc., send their pictures gratis to all members of the official teaching corps.

In France and Italy, a project is being considered to create a state Cinema Establishment. The prefect Malvy has proposed its formation with capital furnished in part by the State which would also give the site. The superior committee would be composed of representatives of the various ministries. The films required for the repository will be produced by the institution in question.

In Italy, the LUCE Institute represents the official organization of the cultural cinema, the technical organizing of state cinematography being under its control.

An important position is given to the cinema in teaching in England. In London,

in 1932, about 10,000 boys attended special morning projections every week. The Empire Marketing Board distributed 2,000 pictures from its stock to schools in the first three years of its existence. A catalogue has been distributed to the schools containing a list of 130 pictures which will be sent on payment of the carriage only.

Messrs. J. Russell Orr and H. W. Samson have between them opened a central Information Bureau for the purpose of centralizing the distribution of teaching films. The bureau possesses a good repertory of pictures, a sub-standard film collection, and a number of works on the cinema, etc.

One of the most important film archives is possessed by Sweden, where various associations engage in distributing pictures. The tenth general meeting of the Swiss Institute for the National Scholastic Cinema devoted a good deal of its time to debating the ideal format for school films, deciding eventually for the 16 mm. size.

Russia has given a big impulse to the cultural film, and the *Sovkino* has an establishment in Moscow for producing cultural pictures. The Russian *Mejrabpomfilm*, the capital for which is furnished almost entirely by the State, has an important teaching film section. Bulgaria has its *State Cinema*, while in Turkey, Holland, Brazil, etc., great efforts are being made for the development of the motion picture in teaching. It becomes necessary to establish a perfect understanding between the book and the teaching film if we are to obtain satisfactory results. The motion picture must form a regular part of the scholastic curriculum, and lend its aid. It must help to bring about an international accord on the question of curricula for schools.

The final test between silent and sound film has not yet been made, but what we must look for in the sound teaching film is reality which is not often found in silent films to which sound has been added.

I am, however, of the opinion that the sound and talking picture will make rapid progress in technical training.

As the result of experiments made in England, it has been agreed that the sound film is more advantageous for children of tardy intelligence, and in the case of ordinary pupils it saves time and holds the attention.

It is considered very useful for the teaching of languages. The enlarged mouth shown on the screen allows the student to follow the making and conformation of the words and the movements of the muscles which emit the voice. The Phonetic Institute of Paris uses films of this kind, and finds them very effective with its pupils.

The best adaptation of the acoustic part depends on the film being shown and on the result desired, and may be accomplished in three ways: simple registration of movements and sounds without explanatory text; registration besides movements and sound of certain words in places where it seems desirable; making a silent picture and then synchronizing a lecture with it.

To encourage the use of the sound films, new apparatus with portable sound cabins has been manufactured and, in Italy, the model built by Alessandro Michetti is especially suitable for small cinemas and scholastic projections.

The sound and talking film is already employed as an aid in teaching in the United States, England and Russia with good results.

Travelling cinemas ought to be given every encouragement. They render a service to the rural population at home and in the colonies that is quite evident. The results obtained by Mlle. Susanna Karpeles in her travels to Laos and Cambodia are a proof of this. We must be on our guard, though, to avoid showing pictures illustrating the attractions of the life of big cities, which might become for rural spectators, as M. Legros well observes in an article in the *International Review of Educational Cinematography* "the first group of agents provocateurs" for the rural exodus.

Moral Education. If in the teaching film, the teacher and the school have the preponderating share of the work, we should not

forget that in the case of the educational cinema — moral education, that is — the family, and especially the mother has the most important task. Family education is the first and most important education that the child receives, and it is a mistake to think that the school can take the parents' place.

Realizing the importance of the cinema in present day life, and admitting that everybody absorbs for himself those things which are suited and necessary for his innate disposition, it is easy to understand that, thanks to the motion picture, the child can store up treasures of knowledge such as to surprise an educationist, or on the other hand, receive from the film harmful impressions.

It is the mother's task to assume the role of censor when this is necessary and to forbid her children witnessing spectacles capable of having a pernicious influence on young minds.

Young girls ought not to be taken to see love pictures, while they should be allowed to see good films exalting the sentiments of motherhood and sacrifice. Boys ought to be taken to see pictures where noble sentiments are exalted, whether in a romantic form or with comic relief. What a happy means for the formation of character the cinema can become! A lesson in good understanding and organization can be found in the pleasant picture "Emil and the Detectives".

It is only women who can realize certain effects on nervous children of terror aroused by some pictures which are not forbidden by any censorship. A continuous diet of such films for nervous children will work evil effects on their mentality and brain.

Inquiries and symposia that have been held allow us to judge exactly the proper present day task of the cinema in young people's lives.

The International Institute of Educational Cinematography in Rome organized some time ago a symposium among the children of various countries on the subject of *When and How do Young People frequent the Cinema?*

One result of the Italian symposium showed that as the children advance in age they frequent spectacles of a superior quality. The boys go oftener to the pictures than the girls, the children of intellectual workers oftener than workmen's offspring. The latter prefer evening performances or spectacles given on holidays. In the smaller centres, the boys prefer to go to the cinema in the evening, while in the cities it is the girls who, like to spend their evenings at the pictures. It was also observed that the children of working class centres are accompanied to the cinema by their parents much more frequently than in intellectual centres.

From an inquiry held among 21,280 pupils of primary schools in the county of London, the following facts emerged.

Cow-boy pictures are popular with all children and especially with very young children. War and adventure pictures are appreciated by boys of from 11 to 14. Little girls do not like war films. Detective and gangster films are very popular with young spectators, while comedies and farces are not much liked by children of from 11 to 14. The documentary films are not favourites. Girls of from 11 to 14 have a predilection for love stories, but boys of the same age do not like this kind of film.

The replies were given verbally, and the questioners are of the opinion that there was a certain amount of dissimulation and human respect in the answers. What really strikes one is that the moral element in films takes hold of the children who seek to imitate in their play and games the things they have seen on the screen. An inquiry organized in France by the director of school for backward children showed that it was advantageous to let them make drawings to help them. The pupils draw every day. On Friday, 75 % of the drawings reflect the cinema spectacle of the day before (The children visit the cinema on Thursdays on their parent's responsibility). From the drawings and the remarks which accompany them it can be seen that war films, for instance, do not give the results one might expect.

Despite the cruelty of death and the sufferings of the soldiers, the children, show in their reactions an admiration for the strong. Pictures of gangsters and cow-boys are delighted in and have a bad influence on the children. "They are fighting. That's fine!" "They're shooting off revolvers: that's what I like".

Radio, Education and Cinema. Radio constitutes a distraction and a recreation for the individual and for the family. As a recreation, its task is a beneficent one. It brings amusement into the house, and the members of the family are less tempted to divert themselves outside their own home with expensive and sometimes harmful pleasures. The idea of a good broadcast programme often unites the family which is pleased to gather together to listen to it.

The question of radio as an aid to teaching is debated nowadays. Following a suggestion advanced by the International Commission for Intellectual Cooperation, the International Institute of Intellectual Cooperation with the assistance of the International Broadcasting Union organized an inquiry or symposium in some 25 countries, on "scholastic broadcasting".

It was shown, in consequence, that broadcasting is employed as a supplementary aid for teaching in general in the form of lectures and addresses of a popular nature intended for the big public. Subjects dealt with include: hygiene, agriculture, the history of art, music. It is almost everywhere used in elementary teaching and in the study of languages. It is often used too in secondary and high schools, and also for music.

Thanks to the valuable collection of information and material obtained, the International Institute of Intellectual Cooperation will consult the teachers of various countries in order to spread the use of this potent aid, the possibilities of which are not yet completely understood and made use of. The daily and weekly press, as well as numerous publications of various kinds, have an important part in bringing about the desired results.

Radio can be from time to time a guide, a stimulus for schools and distant parts of the country far from populous towns. Its waves coming from afar will arouse somnolent forces and make folk realize the great duty that lies upon them to make use of them.

Conclusion.

The woman's task in the matter of the educational cinema and

radio is a serious one. It is an imperious duty which women must face, for often enough the future of a person or a nation depends on education.

We must unite in a common effort of surveillance and propaganda for safeguarding moral social and religious principles and to help in spreading good films and good broadcasting.

THE CINEMA IN THE SERVICE OF THRIFT AND PROVIDENCE PROPAGANDA

(THE INTERNATIONAL THRIFT INSTITUTE)

MANAGER : **Filippo Ravizza.**

PROVIDENCE, THRIFT !

Oh ! remembrances of far-off times when, as schoolchildren, we went along to educational ceremonies all excited by the pleasant prospect of mixing with a crowd of other children in surroundings different from the usual hall, and with our curiosity fired by what we were going to see and hear. But speech followed speech, or one alone lasted throughout the ceremony. The words, all very fine, all persuasive but on the whole monotonous, sounded in our ears but very soon their meaning ceased to penetrate our understanding, so that when at last they concluded on the grave necessities and stern duties of life, the heads of the grown-ups were already nodding with an air of bored assent, and the mouths of the children were open in unrestrainable yawns.

Since then, so many things, God be thanked, have changed, for, otherwise, amidst the showy, deafening, violent and multiple advertisements that are nowadays rained down on adults and children alike, the appeal to providence made on abused motives and with abused means would go altogether unheard and be made in vain.

Certainly, there is not one among educationists and men occupying public offices or invested with public responsibility who can disregard the great importance of thrift, and the profound repercussions that the variations of this factor have on the economic and spiritual structure of the whole of society, so that to speak here of the pressing necessity

of propagating the principles of thrift on an ever vaster scale among the people and among children would be tantamount to trying to force doors that are already open.

This necessity, realized by governments and by institutions to be a true social duty, has not only caused the motives of providence and thrift to be made more effective and in keeping with the present psychology of the people, but has led to the increasing use of the new propaganda media offered by modern technique, in order that these motives might be more deeply and more effectively imprinted on the mind.

It is for this reason that the Savings Banks, which have always been the leading promoters in every country of education in provident measures, have had recourse to the cinema and will do so in the future to an even greater extent.

Truth to tell, not everyone has fully understood the special and economic value of the Savings Banks, namely of those institutions which, for the purpose of social education and with no aim of profit-making, collect the savings of the people, invest them in the most fertile fields of national economy and allocate the whole of the profits to public utility works. Some wrongly consider them institutions of the past, bound to the period and to the social environment in which they arose, living on the heritage of a venerable but now superseded tradition. They are, on the contrary, live and robust organizations developing a vital function, essential to the

economy of a country. They have taken gigantic strides, particularly in the last ten years, in order to be more completely equal to the exigencies of the new times, first among which comes a more active propaganda of thrift. In a certain sense, they can even be considered as institutions of the future, participators in that New Economy which is now being fashioned under the mallet of the exceptional experiences of this period, on account of the wide and coordinated direction they give to their own activity in relation to the entire productive organization of the country in which they live, and on account of the criterion of social function, dominant and exclusive, by which their work is inspired.

Side by side with the collection of savings, they have always been engaged in the propaganda of thrift, which has never assumed the character of publicity, aiming at attracting money to their counters. It has always been inspired by educational ends, already connected with their activity ever since their foundation, namely by an essentially ethical conception of providence and thrift as a propelling and harmonizing element of the life of the individual in society.

The principles of the wise use of time, of means and of energy, of the distribution of means among present and future needs, of the prudent management of money, of the function of thrift for the individual, the family, society, etc.; these are, in brief, some of the fundamental pivots on which turns the modern propaganda of thrift, and which the disheartening experiences of this period of general depression bring out in particularly striking relief. It must be stated that this propaganda has never been based on principles of abstinence and self-denial but on motives of strength of mind, of constructiveness for the future, of the victory of the will over the spendthrift tendencies of today in favour of the necessities of tomorrow. Moreover, this propaganda aims at placing the active life of the individual within a vast framework of productive work, of economic and monetary order, of social well-being and

co-operation. These are programmes which seem to ring with bitter irony in the times in which we live, but which, notwithstanding this, do not cease to exist in the aspirations of everyone. They must be taken as guiding lines, if we wish to get out of the present painful situation.

In this essentially social activity, the Savings Banks have not neglected any group or class of the population, but it is quite understandable that they should first of all have paid particular attention to the young people, precisely on account of the enormous importance of sound principles and sound habits of life being imprinted in good time on the minds of the citizens of tomorrow.

It will therefore not appear strange to anyone, and especially not to the readers of this Review, if the Savings Banks, without renouncing their venerable traditions, but rather in order to carry them on in a more effective manner, have applied themselves betimes to the increasing use of the cinematograph in the development of their educational work.

Immediately after the war, Savings Banks here and there in the various countries were able to experience the success and undeniable effectiveness of educational screenings in their propaganda work. But it was only after the First International Thrift Congress (Milan 1924) and the subsequent foundation of the International Thrift Institute as a centre of union between all Savings Banks in the world and of exchange of their experiences in the various fields, ranging from administrative technique to legislation, social economy, and education, that the Savings Banks, being at leisure to get to know one another better even across frontiers and to compare progress made, began to make more general use of films for their educational propaganda.

It was in this period that the Savings Banks also began to deal with the problems connected with the adoption and use of thrift films, in the first place the financial problem, of capital importance, as can be well understood, which necessarily leads to

an association of the efforts and means of the Savings Banks within the ambit of each nation in order to produce thoroughly effective educational films.

At the Second International Thrift Congress (London 1929) the problem was already ripe for concrete treatment, and with the demonstration of the encouraging experiences, the necessity was realized of coordinating efforts in the international field also, both in order to promote the exchange between country and country of the films already produced and in order to arrive at the production of new films which, with the help of the abundant resources collected at the Savings Banks of the whole world, might prove of high educational and artistic value.

In fact, the Congress, by an unanimous vote of the delegates, invited :

“(a) the Savings Banks and their associations to promote the production of slides and films having not only a local interest and appeal, but of such a nature as to favour the circulation and exchange between the Savings Banks of different countries ;

“(b) the International Thrift Institute to be the centre of offers and demands for such slides and films, to supply a brief summary of such slides and films in its Review, and at the same time act as production centre for international films and slides relating to thrift propaganda, eventually in collaboration with the International Institute of Educational films”.

How the International Thrift Institute has acquitted and is still acquitting the new tasks entrusted to it, is stated in the following pages.

After 1929, the last year of the insecure prosperity, the Savings Banks found themselves faced in almost all countries with the effects of the crisis, which gradually became manifest, and which sometimes did not spare even them hard blows and grave repercussions.

It is precisely in order to react against the most unhealthy and acute manifestations of the depression that the Savings Banks are eagerly undertaking individual or collective

propaganda campaigns against hoarding and growing mistrust and with a view to a clear understanding of present economic and monetary events. In many countries, this campaign is developing into a vast and coordinated activity for the economic education of the people (in Germany under the title of “*Aufklärungswerbung*”, in the United States under that of “Economic education of the people”) intending to give the individual greater consciousness of his function in the economic world around him and to show the close ties existing between currency, savings and the other branches of economic life.

In this vast activity, which accentuates still more the social and educational character of the Savings Banks and which is eagerly carried on both in the school and among the people, the cinematograph, in view of its great powers of attraction and conviction, is of necessity occupying the first place among the means used.

The International Thrift Institute, on its part, is assisting actively in this work, by promoting the exchange of educational films, arranging adaptations of the films to be exchanged and stimulating the Savings Banks, through its publications and direct work, to a larger and more rational use of the cinematograph for the achievement of the broader aims of social education imposed by the new situation.

On parallel lines with the profound transformation that has come about in cinematography, the problem of the adoption of the sound film is being brought before the attention of the Savings Banks, which are gradually being won over to the new idea. A good part of the silent films produced for our propaganda have now been sonorized or have in many cases undergone a very successful musical adaptation. 1932 saw the appearance in some countries of talking thrift films also.

Further, whilst previously films were produced having general aims of education in thrift and providence, in the course of time films already specialized have been produced, each having special requisites of its own

according to the purpose and use it has had to serve.

Classification and Character of Thrift Films.

Thrift films have all without exception a fundamental educational character on account of the very nature of thrift propaganda, the motives on which this propaganda is based and the nature of the institutions promoting it.

Yet bearing in mind this fundamental-character common to all thrift films, it is possible to effect among them a first classification of an exclusively technical sort on the basis of the prevalent method of using them, and of the surroundings in which they are for the most part screened.

Bearing this in mind, thrift films can be divided into :

- A) advertisement films ;
- B) educational films properly so called;
- C) cultural or instructional films.

(A). *Advertisement Films* — These are short films (50, 120, 150 metres) or exceedingly short (20-40 metres) intended mostly for screening in the advertising part or during the intervals of public shows. Their purpose is to propagate thrift in a general way by showing some particularly beneficial aspect of it, or, as a contrast, the harm of waste, etc. Others are intended as propaganda of a special form of thrift or of the use of a given service at the Savings Banks, for instance, the system of payments by means of transfer accounts (very popular in Germany), saving for home-building, etc.

Whilst the very short films have gradually fallen into disuse in view of the impossibility of developing clearly a complete thought on thrift in a few dozen metres of film, the 50-120 metre films have proved really effective for the Savings Banks that have made use of them, particularly in Germany and Czechoslovakia.

Intended, as we have already stated, to be screened for the most part in public halls in the part of the show reserved for publicity, they inevitably suffer the disadvantages pecu-

liar to films of this kind, irrespective of successful execution.

The public generally has the disagreeable feeling that ideas and sensations are being forced on it that are not exactly the same as those which attracted it to the entertainment. Furthermore, the ideas awakened by these short films during the few minutes of their screening are bound to be overwhelmed by the sensations that crowd upon the spectator during the two or three hours of the principal show.

Hence the necessity of films of this kind being of a racy character, such as will arouse the spectator's curiosity and engross his attention by their originality and the beauty of the idea.

Films of the animated cartoon type (trick films : adventures of Micky Mouse, Felix the Cat, etc.) of a comical nature are in general those still preferred by the spectators, who, however, show marked intolerance of old cartoons, too often repeated or executed with faulty or out-of-date technique. Certainly, after the magnificent examples of Walt Disney and the introduction of coloured cartoons, the field is not an easy one for our institutions, who have not abundant financial resources at their disposal. It is nevertheless open to the fertile inventiveness of the artists and of our educationists, who can draw new and universally deep-felt inspirations from the humanity and variety of the aspects of providence.

Among the films of this type, for which the German Savings Banks in particular show marked partiality having ascertained their effectiveness, special mention must be made of the most recent, some of them talking films, produced with a view to combating hoarding and promoting the economic education of the people, in particular the following films, produced by the National Association of German Savings Banks :

"Geht man so mit Geld um" 50 metres (Is this the way to deal with money ?) illustrating cases taken from the daily chronicle of thefts, fires, loss of money, hoarding : —

"Stillstand ist Ruckgang" 90 metres (He

who does not advance goes backwards) which energetically states it to be everybody's duty to refrain from hoarding, in order to allow credit to function naturally in the field of production and commerce.

"Der Kreislauf des Geldes" 54 metres (The circulation of money) a sound film, showing how the money that flows into the Savings Bank does not remain there idle but is directed through hundreds of channels to all the productive fields of the nation, thus reviving its activity and well-being.

"Taler, taler du musst wandern" 75 metres (Thaler, thaler, thou must roam) also a sound and talking film. To the tune of an old popular song, the thalers march to the Savings Bank and come out provided with work tools. They spread themselves over the country and set to work (in agriculture, industry, etc.) and then return to the Savings Bank with the fruits of their labour (interest) which goes to the benefit of all the savers.

Another remarkable film belonging to the same kind is the one produced by the National Association of Czechoslovakian Savings Banks "Peníze jsou krví hospodářského organismu" 150 metres (Money is the life-blood of the economic body). This shows the circulation of money from hand to hand for the various uses of life (from the Savings Bank in the form of credits to the farmer, to the manufacturer, to the merchant, from these to workers, employees, etc., etc., and then on again to the Savings Bank in the form of deposits). A characteristic feature of this film is the fact that when the money is seen passing from hand to hand, the coins are also seen in the foreground in the guise of small cog-wheels quickly revolving and keeping the whole of the economic machinery in motion, whilst when some hand hoards the money, the gearing is clogged and the whole movement interrupted.

Another very recent film also inspired by the same idea is the one produced by the Post Office Savings Bank of Poland "This is the best way", a sound film with musical setting.

(B). *Educational Films Properly so called* —

Although, as we have stated, the films produced for thrift propaganda are all educational in character and in aim, the special qualification of educational films is nevertheless attributed to a certain number of films that lay greatest stress on the moral aspect of thrift, on its value for the individual in the various contingencies of life, for the family, for the nation and for the whole of society.

Under this category come several average and long films (400-2000 metres), which can be used as the principal part of the show at educational evenings or manifestations and are then often followed by some short film of the type included in the previous section.

First of all, we should like to mention the fine film "Man, animals and money" (600 metres) produced by the Italian Association for the Propaganda of Providence and Thrift, narrating the adventures of a well-to-do peasant who imprudently hoards his money, and the unforeseen bad luck which comes in his dream to warn him and lead him to a sounder way of thinking. Although the film was one of the first to be produced for thrift propaganda, it is still one of the best examples of the educational film, on account of the modern technique adopted in creating it, the natural vivacity and spontaneity of the action and the effectiveness of the warning it expresses. The International Thrift Institute has already undertaken editions of this film in German and French, which have had great success everywhere.

Another beautiful film is "The Angel of the Hearth" (900 metres) produced on the initiative of the *Conférence Générale* of French Savings Banks, which drew the attention of educationists in general immediately on its release, in view of the dramatic intensity of the story and the artistic quality of the execution. The film brings out the contrast existing in a family between the spendthrift husband, who comes to the brink of ruin, and the thrifty wife, whose savings, laboriously accumulated and deposited at the Savings Bank, are discovered by one of the

children after her death, just in time to save the family from extreme poverty and allow them to begin a new life. The International Thrift Institute has brought out Italian and German editions of this film also.

The film "Fathers and sons" (600 metres, produced by the National Association of Czechoslovakian Savings Banks shows very effectively the diverging destinies of two young men, one an idler and waster, born of a wealthy family, the other a saver and hard-worker coming of a poor family.

Another film, based fundamentally on the same motive but with situations peculiar to the surroundings in which it is intended to be used is "Berouw voor het leven". (A life's regrets) (1200 metres) produced on the initiative of the Post Office Savings Bank of Batavia (Dutch East Indies), which has already been widely used in those regions for the propaganda of providence among the natives.

The Swedish Post Office Savings Bank has also produced two educational films, "Trollbruden". (The Sorceress Bride) (2000 metres) and "Sven Klingas Levnadsöden" (The fortunes of Sven Klinga) (1200 metres) which have circulated throughout the countries of Scandinavia with great success everywhere. The plots of these films also are inspired by the truth that those who work and save perseveringly in the end triumph over all adversity. Of the first of these two films, the International Thrift Institute has also produced an Italian edition entitled "Il talismano della vittoria". (The talisman of victory).

Other educational films have been produced on the initiative of the Philadelphia Savings Fund Society (United States), all of the same length (600-650 metres), also presented in a reduced edition (16 mm.) for school use. "Saving Grace" (from the name of the small protagonist) shows the efforts made by a small group of school children, who succeed in working and saving sufficient to be able to provide expenses for their higher education. "Top Earth" inspired by the principle that by constancy and thrift all

difficulties are overcome. "The old man of the sea", is the story of a wealthy spendthrift, who, when poverty has fallen upon him, leaves his family and goes wandering about the country here and there like a ghost narrating the sad experiences he has had. "Money talks" gives the strange adventures of a bank-hote before safely arriving at a Savings Bank.

(C). *Cultural and Instructional Films* — From the fairly large number of thrift educational films, the cultural and instructional films can be distinguished by their prevalently descriptive and didactic character. They have been produced in order to show objectively the nature, tasks, functioning and services of our institutions, their historical development, the evolution of saving through the ages, the functions performed by our institutions in the vast sphere of national economy, and so forth.

To this kind belongs the German film "Werden und Wirken der Sparkassen - Der Kampf um den Sparpfenning" (Development and activity of the Savings Banks. The campaign for the savings penny) in three parts totalling 1120 metres. After a brief mention of animals that are noted savers and the forms assumed by saving from antiquity to our own days, the film shows the rising up of the Savings Bank, illustrating their development and evolution right up to our times, and setting forth by means of cartoons and well planned figurative statistics the economic and social function of the Savings Banks for the benefit of the people, their growing importance in every country, the propaganda campaigns they carry out in order to foster providence and thrift in the minds of the people, and of the young ones in particular.

The high educational value of this film was at once recognized by the teaching class. It has even been granted by the Reich Board of Censors a special license as an instructional film and is allowed to circulate, not only in the schools but also in public entertainment halls exempt from tax.

Another film to be placed in this category is the Swiss film produced by the Savings Bank of Geneva "Premier pas vers l'épargne" (400 metres) (First steps to saving) intended for screening before junior school children (7-14 years), showing in an elementary and persuasive manner the formation of savings, the way they accumulate, the benefits they bring to the individual and to the community.

Circulation and Use of Thrift Films. It is clear that the work of the Savings Banks in the cinematographic field is not entirely exhausted with the production of propaganda films. It may even be said in a certain sense that only after having prepared a good propaganda scenario and had it translated perfectly into cinematograph terms by a good firm of producers, does the real work of our institutions begin for securing a wide circulation of the film so produced and its use among the public, thus achieving the purposes aimed at.

We must therefore mention briefly here :

- a) the circulation and use of the films within the boundaries of each country ;
- b) the interchange of thrift films between the various countries.

Circulation and use of thrift films within the boundaries of each country. — The production and circulation of thrift films are essentially undertakings of centralized propaganda since they require, as stated before, a concentration of resources and a specialization of functions which can in general only be secured by the National Savings Banks Associations.

It is therefore at the head offices of these institutions that special organs or centres are generally set up for the preservation of the films produced and the organization of the service for the sale and loan of these to the Savings Banks affiliated.

In Germany, for example, whilst the sale of film copies to the associated Savings Banks is dealt with directly by the central propaganda bureau of the National Association of

German Savings Banks, the loan service is run by the regional federations of the Savings Banks, which in order to allow the considerable expenses incurred by the production of the films to be paid off, guarantee the Central Association the purchase of a certain number of films, which they then lend out to the Savings Banks of the region on the basis of a special "films circulation plan" stipulating the turn of every Savings Bank in the various centres. Usually, the film is not screened just once, but is left in the same centre for a week at least, so that the Savings Bank that has asked for the loan of it and the other local institutions taking part in the arrangement may plan a complete cycle of screenings of the film at public entertainments (a very expensive system but one which gives better results as a larger public can be reached in this way), or at special educational evenings, in the schools, at continuation-school organizations, cultural associations, women's clubs, religious societies, social education reunions, etc., and lastly on the occasion of exhibitions, fairs, etc., and other local events.

In order, however, to carry out a complete programme of screenings, the Savings Banks must not proceed on their own but must make arrangements with all the other institutions promoting the increase of education screenings locally, and ask for their intervention and support. In countries where the loan service for Savings Banks has been organized, the Associations that have experimented with it state that it has not given the good results that were expected, as the films are little used by the Savings Banks during the year, whilst on the 31st October (World Thrift Day) or on other occasions the demand exceeds the supply.

Side by side with the direct work done by our institutions for the circulation of their thrift films, mention must be made of the vast movement which is developing in all countries in a more or less accentuated manner, and which, thanks to the highly meritorious activity of the International Institute of Educational Cinematography, is acquiring

the character of a truly international action for ensuring the development and widespread use of educational films at public entertainments.

There is really no need to dwell on a subject of this kind in this Review, which has already published plentiful information regarding the systems adopted by the various governments for encouraging educational screenings. As is known, these systems range from the German one, whereby the entertainments tax is appreciably lightened on public shows in the programmes of which educational films are included, to the Italian, which obliges cinema proprietors to screen educational films at every show.

The Savings Banks and their Associations are, on their part, following carefully and are in full sympathy with this movement, which, although in some countries it has already been thriving for some time, in others is only now, starting to make progress and they will see to it that among the educational films intended for screening at public shows, those for the propaganda of providence and thrift are given a place in keeping with the importance of the social principles they promote.

The diffusion of thrift films in rural centres. — Side by side with these new plans for the use of thrift films at public entertainments, particular mention must be made of the arrangements made by the Central Bureau of the *Conférence Générale* of French Savings Banks in agreement with the General Propaganda Commission of the National Bureau of Social Hygiene for the screening of thrift films by the travelling squads at the disposal of this Commission (1). All regions of

France and North Africa are provided with travelling cinemas for the propaganda of social hygiene, which circulate throughout the year within a radius of ten departments. Each group is formed by a lecturer and chauffeur-operator and, as regards the material, a motor and dynamo, a cinematographic projector with screen, a collection of films, a series of demonstration posters, propaganda booklets and handbills. As a rule, they remain in every region twenty-five days in the month. Each squad usually gives two free performances, one in the afternoon in the schools, the other in the evening for the public, distributing propaganda material at the same time. The beautiful thrift film "*L'Ange du Foyer*", previously mentioned, is included in the shows given by these squads. It is reckoned that in this way upwards of 800,000 persons are reached every year.

A similar plan has also adopted in Italy by the Association for the Propaganda of Thrift and Providence, which equips the travelling squads with sound apparatuses as well.

The international exchange of Thrift Films. — As mentioned previously, one of the resolutions passed at the Second International Thrift Congress (London 1929) explicitly committed to the International Thrift Institute the task of functioning as a centre for the exchange and production of thrift propaganda films.

The Institute's task is therefore of a two-fold nature : on the one hand to see to the exchange of films already produced among the Savings Banks of the various countries, arranging at the same time for the necessary adaptations to the language, psychology and environment of the countries in which they are to be screened ; and on the other, to promote directly the production of new thrift films of an educational character and international value.

The reasons which prompted the Congress to pass this resolution unanimously are clear and obvious. In this way, the horizon and the propaganda possibilities of the various

(1) LUCIEN VIBOREL has entertained the readers of this Review (on the last occasion in the September 1933 number) on the flattering results obtained from the work of these travelling squads for social propaganda, and from the school teaching of social hygiene by means of the film. We have just been advised by the Association for the Propaganda of Thrift and Providence in Italy of the great success obtained by the first propaganda tours undertaken with its auto-travelling sound apparatuses, which have effected screenings in 300 rural communes of Lombardy.

Savings Banks were appreciably enlarged, by enabling them to make use, at little cost, of the films already produced by their sister institutions in other countries, and making their own educational activity incomparably more varied and effective. Moreover, the purpose of committing to the Institute the duty of producing new films directly, was to concentrate around the only international organization of Savings Banks all the resources available for this end, sufficient to be able to arrive at the production of films worthy, in view of their human and educational character and artistic execution, of the noble mission our institutions are carrying out among the people.

In order to fulfil the first part of the task entrusted to it by the Congress, namely the part regarding the exchange of the films produced, the Institute found it necessary to solve first of all two problems of great importance. On the one hand, it had to overcome the difficulties caused by the high customs barriers existing in almost all countries, particularly in connection with cinematographic films, which barriers not rarely made the price of the films prohibitive for our Savings Banks. On the other hand, the Institute had to undertake the work of producing on its own responsibility special editions of the films to be exchanged, with a translation in the languages asked for and the alterations and additions suggested by the thrift propaganda necessities peculiar to the individual countries.

The Institute has made special arrangements so that on the occasion of the various national Savings Bank meetings, some of our films reputed as being amongst the best may be forwarded in good time for showing, in order to convey to the greatest possible number of Savings Bank representatives and officials a clear idea of what is being done in this field in the other countries. Even respecting this limited exchange of our films, the particularly severe customs tariffs in force almost everywhere have given us a considerable amount of trouble.

Our Institute therefore gladly decided to

co-operate, in so far as it is able, in the project put forward by the International Institute of Educational Cinematography aiming at the abolition of customs duties on educational films. This project, as is already known, has recently been approved at Geneva by the Diplomatic Conference specially convened.

It is now to be hoped that the governments interested will arrange for the earliest possible ratification of the project agreed upon, which, it must be admitted, removes a big obstacle from the development of educational cinematography. In this field also, the International Thrift Institute has already been of assistance, by inviting the most eminent personages of the savings world in every country, through the respective National Associations, to bring their influence to bear on the organs of public opinion and any legislative bodies of which they form part, in order for this project to be ratified as quickly as possible.

Friendly negotiations are also in course with the I. I. E. C. with a view to our Institute — as a specialized technical organization — being called upon to give an opinion on all thrift and providence films produced in every country which aspire to obtain the qualification of educational films.

In the meantime, however, notwithstanding the great difficulties previously mentioned, the international exchange of films has already been started in a promising manner, (a sign that it fills a real necessity) and the Institute has already undertaken on its own responsibility, and carried out successfully from all technical and propaganda aspects, editions in various languages of the long Italian film "Men, Animals and Money", of the French film "The Angel of the Hearth", of a short German trick film "The Morning of the Birthday" and of the Swedish film "The Sorceress Bride" mentioned elsewhere. These films are now circulating in various countries to the entire satisfaction of the Savings Banks that have adopted them.

With a view to a more extensive interchange of thrift educational films, which in all likelihood will come about with the ratifica-

tion of the project recently approved at Geneva, the Institute has sent out to the Associations affiliated to it and to firms producing thrift films, a recommendation to the effect that, when producing new films, the possibility of their being screened abroad should be borne in mind. The idea is to exclude or minimize the use of words used in the scenes, and to avoid, without, however, robbing the film of its national fragrance and characteristics — such peculiar and unusual aspects of local surroundings or events as will not be understood in other countries. In this way, by substituting the sub-titles and making other slight alterations, the films will be able to be screened without difficulty in other countries also.

In 1930 the Institute already took a first census of the thrift films existing. We now wish to complete this with a collection of more detailed technical and propaganda data concerning both old films and the new ones produced in the meantime, in order to have at our disposal, if possible, a complete picture of all the elements at the service of the cinematographic propaganda of thrift and providence. We shall be grateful to producing firms and educational institutions which are in possession of films of this character and have not yet informed us of this, if they will let us have data and information, which will be extremely useful to us for arriving at a still wider exchange of our educational films (1).

The data we require are listed in full and in detail on the following form, which has served for our census of thrift films, and we shall be glad if institutions and producing houses will refer to this, at least in a general way, when communicating with us.

INTERNATIONAL CENSUS OF THRIFT
AND PROVIDENCE PROPAGANDA FILMS.

- 1) Title of the film
- 2) Producer
- 3) Savings Bank or Association ordering the film . .
- 4) Specify the scenario-writer and state whether he belongs to savings or providence institutions

(1) Replies to be addressed to: "International Thrift Institute", Via Monte di Pietà, 11, Milan.

- 5) Length :
 - a) with sub-titles
 - b) without sub-titles
- 6) Price :
 - a) for films as under 5a
 - b) for films as under 5b
- 7) Place and date of production
- 8) Censoring and cinematographic revision
 - a) censoring or revision bureau that has given permission for the screening
 - b) place and date of censoring
 - c) reference and control number of the film
 - d) has the film been officially recognized as of educational or cultural character?
- 9) Technical qualities :
 - a) size (whether normal, 35 mm or reduced)
 - b) stock (whether inflammable or non-inflammable)
 - c) quality of the frames (whether trick, ordinary, colour, etc.)
- 10) Propaganda qualities :
 - a) is it a film for educational manifestations? . .
 - b) is it a film suitable for use in the publicity part of public performances?
 - c) is it an instructional or cultural film?
 - d) is it intended for use in certain propaganda campaigns (for instance, against hoarding, for saving-to-build, for spreading the system of payments by transfer, etc.) or in general propaganda of providence and thrift?
 - e) quality of the sub-titles (whether in verse or prose) in which language written
- 11) Possibility of use of the film :
 - a) where is it for preference screened (specify whether during public performances or in the schools, at educational evenings, etc.)
 - b) has the film been produced for a given class of the population (schoolchildren, workpeople, etc.)?
 - c) do the scenes contain words, sayings, documents, letters, signs in a given language?
- 12) Is the film suitable for screening abroad?
- 13) What alterations, besides the substitution of the sub-titles would be necessary in order to enable the film to be screened abroad?
- 14) Brief summary of the plot
- 15) State what results and successes have been obtained
- 16) Various

**For the Development
of Educational Cine-
matography.**

We stated previously that when using their thrift films the Savings Banks must take care to establish the best possible relations with all those institutions which either locally or nationally promote the increase of educational screenings, and furthermore to avail themselves of their assistance in order to extend thrift and providence propaganda activities.

For this it is necessary, on the one hand, that our Savings Banks do not have the feeling that they are taking the first steps along an as yet unbeaten path, but that they should on the contrary be conscious of taking part, albeit with clearly distinct aims and widely differing characteristics, in the whole of that vast educational movement which aims not only at combating the anti-social consequences of the misuse of the cinematograph, but above all at using this means for the purpose of the moral and intellectual education of the masses, and particularly of young people.

On the other hand, all institutions engaged in educational cinematography must understand the social and moral ends by which the work of the Savings Banks is exclusively inspired, and where possible arrive at a profitable co-operation with these institutions for the achievement of the common aims.

It is necessary that the Savings Banks participate, where possible and through the medium of their Associations, in the very life of these committees, contributing actively towards the development of undertakings of interest to them all.

In the first place, the Savings Banks are directly interested in supporting the movement which aims at giving a larger extension to educational screenings, particularly in view of the close and obvious connection existing between thrift, providence and all the other branches of education. In the second place, the task is incumbent on them of representing among these institutions the requirements and aims of thrift and providence propaganda, of keeping themselves informed as to the new tendencies manifest in the field of teaching, of the technical progress of the cinematograph, of the results of the various national and international inquiries instituted on the Cinema which reveal preferences and tendencies on the part of the public and of young people to be borne in mind when producing new thrift films. Then, there is the necessity of supporting all those enterprises of common utility which

aim at improving educational screenings and making them safer and less costly as, for instance, those for the standardization of the size of the films and the adoption of non-inflammable stock.

It is fundamentally among these institutions that our Savings Banks can best discuss and make known our needs and in particular obtain support for spreading the undertaking that for a long time has been promoted by the German and Spanish Savings Banks (1), the aim of which is to approach film-producing houses in general with a view to avoiding as far as possible scenes of luxury and wast and all those which have a demoralizing effect or are of an anti-educational character in films to be screened before the big public.

In this field, we should like to mention the work done by the Spanish Savings Banks Association, whose representatives at the Hispano-American Congress of Educational Cinematography (Madrid 1931) gave an account of the good work that the Savings Banks had been doing for years with a view to the increase of educational screenings and of the projects they purpose carrying out for the propaganda of providence and thrift by means of films.

Also highly deserving of merit is the undertaking of the Savings Bank and State-controlled Pawnbroking Institution of Guipuzcoa and the Savings Bank and Municipal Pawnbroking Institution of S. Sebastian Spain, which has purchased a whole series of cinematograph apparatuses and a complete outfit of educational and instructional films, which they lend out to the schools free of charge.

For the production of new thrift films. — The production, circulation and use of thrift propaganda films involves the solution of a whole series of technical, aesthetic, educational and financial problems, which it is advisable should not be confined to a limited number

(1) At the sitting held at Madrid (1932) by the Permanent Committee of the International Thrift Institute a recommendation to the same effect was extended to all Savings Banks in the world.

of persons but sifted and widely discussed also among the directors of our institutions, by pooling the treasure of their experiences. Paraphrasing what others have said, we can rightly assert that the creation of a thrift film requires the simultaneous work of a technician, of an artist, and of an educationist with a thorough knowledge of thrift problems and of our institutions. There exist in this field problems which cannot be left exclusively to the judgment of one or another of these persons but which must be solved by mutual agreement.

The questions of whether long or short films are preferable, whether special films must be produced for young people and others for adults, whether our field of activity must be confined for preference to screenings in the schools and at educational institutions or on the contrary aim at the big public, what attitude to take up in respect to the sound film, the movement for the adoption of non-inflammable stock, for the standardization of the size of the films, how to act in face of the activities of public authorities for the extension of educational screenings in public halls, are all problems which must be dealt with and fully discussed also by us, although we are not technicians, or better still in co-operation with technicians.

This work of collaboration among the men of our movement, cinema experts, educators and all persons in general engaged in the screening of educational films, can alone yield the best results for the cinematographic propaganda of thrift and providence.

Meanwhile, the fundamental problem that our institutions are called upon to solve in this field as a preliminary measure, is the financial problem. The cinematograph is certainly one of the most effective means at our disposal for the propaganda of thrift, but it is also among the most costly, on account of the expense of material and its use among the public at large.

It is true that the cost of the films does not always run into the soaring figures to which certain giants of the American cinematograph industry have accustomed us, and that exam-

ples could be cited of films that have circulated and are still circulating throughout the world with great success, although their cost was comparatively small. Notwithstanding this, the production of thrift films, even those intended for screening before school children and at educational evenings, always entails a serious expense for our Savings Banks and one which it would be difficult for them, taken individually, to meet except at the cost of abolishing every other item of propaganda expenditure.

In order to overcome this preliminary difficulty, the only thing for them to do is to join forces in the enterprise, pool their financial resources and distribute the expenses incurred over the largest possible number of Savings Banks. Therefore, as already stated, the thrift films constitute an undertaking of centralized propaganda, today promoted by the National Associations or Central Bureaux of the Savings Banks, tomorrow, let us hope, carried out more effectively by our Institute in a vaster circle both as regards financial resources and the circulation possibility of the films : the international circle.

It was precisely on the basis of these considerations that the Second International Thrift Congress committed to the Institute the task of acting also in the field of thrift film production. In fact, it is only by co-operation among the Savings Banks of the various nations, by a pooling of resources and by the possibility of an international circulation of our thrift films, that something really effective can be done, in keeping with the importance of the moral and social principles of which our institutions all over the globe are the staunch upholders. A first step in this direction has already been taken by our Institute with the project for an international competition for a thrift film scenario, which, although warmly approved by our Permanent Committee, it has not been possible to begin in view of the difficulties of the present moment.

As we stated in the report presented at the Madrid (1932) meeting of the Permanent Committee : " the greater part of our thrift

films have their fertile but restricted field of action in the schools, at educational entertainments, at meetings held by various associations on the occasion of festivities, ceremonies and the like, and at best are screened in public places, at special evening gatherings and, generally, in small centres only. Very few reach the big public. Those which do, are for the most part short-length films of 80, 100 or 120 metres (animated cartoons, etc.) which, although being undoubtedly effective, have the disadvantage of being projected for the duration of a few minutes only, after the screen has, for instance, been raining down on the spectators for several hours on end scenes of luxury and waste, if not worse, to dazzle or thrill the public.

On the other hand, whilst recognizing the highly praiseworthy efforts made by our institutions in such a short time, we must admit that the films produced through their medium — and there are some really fine ones — are not quite the right thing for the big public, some on account of their purpose being too evident or their propaganda tendency too marked, others on account of the excessive monotony of the themes and developments, others again because of the technical and artistic execution, which of necessity is not of the first order. In short, there has up to the present been lacking in the cinematographic field a really great demonstration of art connected more or less directly with the ideals of thrift and capable of exercising an attraction over the minds of the people and winning them over.

It may be asked whether the manifestation of the virtue of thrift is absolutely irreconcilable with the sum total of the elements by turn adventurous, dramatic, tragic or comic, which constitute at bottom the emotive plot of the films and succeed in interesting crowds. We do not think so. We have too much confidence in Art. We are too strongly convinced that thrift is an essential element of individual and collective life to consider it possible to have any doubts on this point.

Moreover, we believe it to be an unavoidable necessity for our institutions to get into

direct touch with ever widening circles of the public, especially by means of the cinematograph, for the very reason that it opens up an otherwise inaccessible path. It is therefore to be hoped that what each of the National Associations, taken separately, has not been able to realize completely, it will be possible to realize on international lines by combining all our forces, especially as it is a question of a sphere, the cinematograph, where the beauty and artistic execution of a film implicitly secure for it an international circulation.

Consequently, it seems to us necessary to make a collective effort in the field of the cinematograph, in order to have a thoroughly and universally effective instrument of propaganda, on the influence of which we can rely in our future activities, so as to obtain concrete results and derive great moral profit from it, even if indirectly only.

Our idea, therefore, is to join forces with a view to producing a great film inspired by the ideals of thrift, in which, however, the propaganda aims are not too conspicuous and which, thanks to its artistic qualities and the interest it arouses, will be able to be circulated and screened at public cinemas in any country whatever, neither more nor less than the other films but with the added support, direct or indirect, of our Savings Banks. In order to do this, however, a scenario will first of all have to be found: a cinematographic plot offering full scope for the propaganda requirements which we intend the film to serve.

These reasons, which we then set forth, have lost none of their interest today even in face of the profound changes that have come about in the cinematograph following the introduction of the sound film.

There is no denying that today, notwithstanding the declared aversion of some of the leading lights of the cinema to the sound film and despite the imperfections and incongruities from which it is not immune, it has triumphantly invaded the field of cinematography and is even installing itself in the scholastic and educational field. Our

institutions also have not failed to perceive these new tendencies, and, as already mentioned, the first thrift sound films are already in circulation in some countries. As regards other films, already mentioned previously, the expedient of sonorization has been attempted either directly on the film or by producing special records for the accompaniment. But in this field, as will be realized, there is still a lot of ground to be covered by our institutions also.

Certainly, the silent film, just like music, could be understood all the world over (in fact has there not been talk of a cinematographic Esperanto constituted by the sheer play of shadows on the screen?). The addition of speech has to a certain extent destroyed this possibility, and the system of "dubbing" with its defects and incongruities has only been able to restore it in part.

Some persons, however, forgetful of the fact that the cinematograph is preeminently a field in perpetual revolution, into which from day to day new techniques and new ideas are flocking, opening out ever widening horizons, have judged too hastily that the spreading of the sound film would strike a heavy blow at the international circulation of the films, and have even predicted the gradual isolation of the respective national cinematographic productions, assisted in this by the strong protectionist tendencies predominating nowadays in all countries. In this way, the circulation of every film would be confined to the country or countries where the respective language is spoken. A new barrier would thus be added to the many others already dividing the peoples today.

To tell the truth, these hardly cheerful prophecies have fortunately not been fulfilled. The technical progress that is constantly being made in the field of the sound film, besides having permitted of an appreciable reduction in the cost of sound films (yet even today films of this type cost from four to five times as much as silent films) has opened up new possibilities for the international circulation of the sound films by the introduction of several contrivances, chief

amongst which is the process of post-synchronization enabling the same film to be obtained in the various languages, even at a distance of time, without making new versions for each of them.

Certainly, to return to our thrift films, the project our Institute wished to bring to a successful issue aimed at producing a film not of international *content* but of international *value*. The idea was to create not a typical average, colourless film that would reflect indiscriminately any locality and country, but one which, whilst drawing life and breath from a given locality and from a given psychological temperament, could nevertheless show, if carried out with true art, the human and universal nature of the motives lying at the root of the act of saving in all latitudes and in all countries. And so much the better if, whilst showing customs and habits peculiar to a given country and aspects clothing with varying humanity the common thought of providence and thrift, our film could also serve as an instrument of reciprocal understanding and mutual sympathy among the peoples of the earth.

* * *

And now, before arriving at the conclusion, let us turn to a particular class of persons who have perhaps read through the foregoing pages with patient courtesy but also with a smile of amiable scepticism, and mention briefly the fundamental importance that the cinematograph has at present and the still greater importance it will assume in the future for our activities on behalf of providence and education, and not only for this.

Unfortunately, it does not appear to us that in this way we are trying to force doors that are already open. Beside the enlightened men at the head of our institutions in the various countries, there are others, still today, who consider thrift and providence propaganda activities, particularly by the cinematograph, as an accessory, a luxury for flourishing times, which we can very well do without today.

"In the hard-working and sensible citizens", they say, "of our town, of our district, of our country, the spirit of thrift is inborn. If it has perhaps weakened somewhat, this is due to the exceptional circumstances in which we live. When these circumstances have disappeared, the people will return to their thrifty habits. So it is useless trying to strengthen in them with expensive means natural principles they already possess instinctively".

"Never as in this period", say others in privileged countries, "have the people had so much confidence in our Savings Banks. Deposits are reaching figures never before attained. Why say just now that the virtue of thrift is flagging and needs a stimulant in the shape of a few hundred metres of animated photographs?"

We must say in all sincerity that the attitude which is clearly revealed by these questions and of which traces are still to be found is perhaps one of the most harmful for the future of the movement impersonated by our institutions.

In the first place, the mentality and habits of a people are not something static, immutable, eternal. They vary, sometimes radically, under the influence of so many local, social, political and economic factors.

Wars, social strife, economic crises, monetary catastrophes, only to mention recent experiences, are here to warn us and point out to us the profound upheavals they have brought about in the human mind and in human habits.

Besides, if the amount of deposits in general has increased at the Savings Banks in the countries least touched by the wave of mistrust and pessimism, can we really say that it represents an actual improvement on the deposits registered in the first fifteen years of the present century, comparing the figures on the basis of the purchase capacity or gold value of the currencies? It moreover suffices to glance at the changed social composition of the depositors and at the changed average of the pass-books to be convinced that if a large part of the population have

come to our Savings Banks, another conspicuous part, perhaps the most deserving of our attention, has drawn away, probably never to return.

Then again, are they all real savings, those which are at present accumulating in the Savings Banks of certain privileged countries? Who is not aware that the sometimes heavy inflow of deposits registered in this period by our institutions does not represent true savings, but in great part bank deposits, money withdrawn from investment on account of the dangers of the times and handed over for safekeeping to our Savings Banks, until the clearing up of the financial horizon causes it to take wing in bulk, attracted by the mirage of more or less real gain?

Economists, statesmen and educationists have ascertained, both yesterday and today, that the spirit of thrift has been weakening in the last fifteen years, or that at least the conditions hampering its development have increased out of all proportion.

Besides monetary and financial catastrophes which have thrown disorder into the whole organization of credit and production, and which have left a serious imprint on life-long habits of providence based on the certainty of a stable currency and of a safe investment, too many attractions to the easy life, too many temptations to think more of enjoying oneself today than of living tomorrow, and too many sophisms about consuming more and saving less, have been circulating and are still circulating in the world for us to be able to look towards the future with lazy optimism and to shirk contributing, in a field which is our own, to the moral and economic reconstruction of the nations, of which thrift is always the primary and irreplaceable basis.

It is precisely from this fundamental fact that arises the duty of the Savings Banks, which are the staunchest promoters of the moral and social forces of thrift, to avail themselves of all means of tested efficacy for persuading people to recognize and practise this traditional virtue, which lies at the very base of civilization.

Every evening, the cinemas are crowded with millions of persons taking part, although only passively, in the happenings turn by turn tragic, heroic, adventurous or criminal projected on the screen. Every evening, millions of persons assemble together in silence to submit to a continued bombardment of images arousing deep emotion, of which the lasting influence is felt, as many studies have proved, in so many aspects of individual and collective daily life and, unfortunately by no means lightly, in the field of social pathology too.

Is it not therefore logical that the Savings Banks also should take advantage of this powerful means of diffusing ideas, the cinematograph, which commercial, political, social and religious propaganda already uses on a large scale for its own ends?

Is it not the duty of the Savings Banks, which have so much at heart the education of the young people, to make use of a means which, as has already been fully recognized by so many, is capable of exercising so great an attraction and suggestive force on young minds?

* * *

In these pages, the International Thrift Institute has briefly summed up its experiences, the difficulties encountered and the new methods which the Savings Banks together with the Institute purpose adopting in order to improve the cinematographic propaganda of thrift, a part of the broader educational activity which they are developing in every country.

This is the contribution we offer to the First International Congress of Educational Cinematography, at which our Institute is enthusiastically taking part, convinced that this will give rise to most useful suggestions for doing more and better in the future.

The gravity of the times which the world is passing through, and the vastness of the experiments which the nations are attempting in order to prepare a better tomorrow impose on all social institutions new and more serious educational tasks, which must be accompli-

shed in a concrete manner by the timely adoption of means of tested efficacy on the psychology of the people. Among these, it is needless to say what place the cinematograph occupies today.

The principles of thrift and providence education promoted by the Savings Banks in every country compel them also to follow attentively the progress made and the new experiences in the field of the educational cinematograph.

The subjects set forth in the extensive programme which the Congress is called upon to deal with are all deserving of our keenest attention.

The problems connected with the methods for the use of films in the schools and with the psychological preparation of the young people for this are of special interest to us, particularly because in the future thrift and economic educational films produced by the Savings Banks will be able to be more generally used in the school in harmony with the instruction given.

The problem of the use of films in all branches of social education (hygiene, social safeguards, agricultural life, etc.) has also for us a particular value in view of both the teaching that can be drawn from these experiences and the intenser use of our thrift films in the future side by side with these films.

The action taken by the State in order to extend the screening of educational films and to facilitate the circulation of these touches a point of vital importance for the development of our propaganda work.

The very use of the cinematograph as an instrument of relations and knowledge among the people involves a principle which our Institute has already in part acted upon with the exchange of thrift films between the various countries, mentioned previously, which promotes the knowledge in one country of the various and original aspects of the social life in others, the spirit of providence and thrift being recognized by all as the common foundation of a human solidarity passing beyond all frontiers.

Lastly, all the technical problems for

improving educational screenings and making them safer and less costly are also of an importance to us which cannot be overestimated.

We should like to say, however, that if the Congress affords the institutions taking part a better knowledge of one another and a more intimate understanding of the various purposes by which they are severally inspired, although they all aim at the final goal of moral and intellectual education, a great step will have been accomplished by that fact alone, since it is this mutual knowledge that can instil in them the desire to co-operate in a concrete manner with a view to a wider and coordinated use of the cinema for educational ends.

The International Institute of Educational Cinematography has already done admirable work in this connection, for which all institutions working in the same sphere are exceedingly grateful. Suffice it to recall, in addition to the inquiries and extensive information collected in every field of social life in relation to the cinema, the customs agreement recently approved at Geneva and the organization of the Congress crowning the first phase of its praiseworthy activity. The I. I. E. C. has moreover promoted the establishment of national organizations and committees for educational cinematography, whose activities are in full swing today in many countries.

Our own Institute, which has been closely co-operating with the I. I. E. C. for years and has always been at pains to urge the Savings Banks to make use of the cinematograph in their propaganda activities, would

now have its task greatly facilitated if cordial agreements were also made locally in the various countries between the National Savings Banks Associations and the National Committees for Educational Cinematography.

Thrift and providence are two fundamental aspects inseparable from any project in the well-ordered, hard-working and healthy life of the individual and of the family. Thrift and providence are principles which cannot be left out of any programme for educating the people to a love of the land, to life in the fields and to a stronger attachment to the mother-country and to the family. In short, thrift and providence are elements of life inseparably bound up with every teaching or education aiming at giving the individual a better knowledge of the social whole of which he is a part and an expression.

If the perusal of these few pages and an understanding of the aims set forth therein succeed in inducing the educational institutions to co-operate with our Savings Banks in every country in a more active manner for the use of our thrift films alongside those having other educational aims, and if this co-operation leads to the production of films which, side by side with the other educational principles, do not disregard those of providence and thrift, then really great progress will have been made not only for our institutions but for the common work of social education in which we are all proud to be engaged.

This wish will also be expressed, we think, by the Savings Banks delegates in full agreement with those of the other educational institutions attending the Congress.

THE CINEMA, THRIFT AND INSURANCE

BY

Prof. P. Medolaghi.

THE cinema which has handled so many admirable educational tasks cannot fail to contribute its work for the development of the various forms of provident aid, which, we say, provides in a way a measure of a people's civilization. Ignorance and misery indeed are the two chief obstacles to the spread of ideas and the adoption of notions of thrift and insurance. As the economic and cultural level of a population rises, so we see a corresponding prosperity in the various branches of social providence and insurance schemes in all grades of society.

Not all the forms of social providence are equally accessible to the understanding of the big public. If the system of saving has been able, thanks to a vast organisation of collecting offices guaranteed by the state, to penetrate into the humblest strata of society and overcome the innate diffidence of the rural classes which bring the largest contribution in this form to the national wealth, if the so called popular insurance has in some states gained much ground as a result of able propaganda and owing to special psychological conditions of the people, if, in fact, obligatory social insurance is gaining ground slowly but surely, we must nevertheless recognize that there still remains a great work of instruction and education to be done to make the consensus of the people in these forms of providence more rational, more widely spread and more conscious.

We must make known to those who earn their living by their work what are the dangers which menace their economic stability. Then when they are well informed of the gravity of the risks of work against which a wise policy of defence proposes to assure

them, they will become convinced supporters of the application of the various existing laws on the subject. We must study voluntary thrift and insurance, which is the more difficult to practise the more it is indicated as necessary. We must direct it so that every one, despite interested advice, is in a position to see for himself what is most suitable for his age, family and economic conditions.

These are difficult tasks. The history of social assurance, even if we restrict it to the last decades, is full of experiences which go to prove how difficult it is to obtain from the free initiative of the humblest workers that minimum of providence which is absolutely indispensable to prevent sickness, injury and old age from being synonymous with utter misery. The most considerate and disinterested propaganda, large state aid and all possible assistance and simplification in the matter of formalities, together with a period of relative economic prosperity have not been enough to secure definite progress in this field. Thus, one after another, the most obstinate doctrinaire opponents of the introduction of obligatory insurance have been obliged to give way before the indisputable evidence of the facts.

Obligatory insurance as a practical thing offers us other examples of lack of understanding. Often enough ignorance and diffidence deprive the assured of situations created for their interest. Thus cases occur where persons do not trouble to obtain satisfaction for their rights. Then we find an excessive pressure of demands, an attempt to deform the interpretation of the law so as to obtain ampler benefits. These are, as I have said, examples

of incomprehension and a lack of proper understanding of the idea of insurance, which can be found in the history of obligatory insurance in all countries. Such cases appear with a singular uniformity, and only education and instruction will eradicate them.

These are not easy tasks, but the motion picture can become a potent auxiliary in facing them. I think that the film may be used here in these three forms: the documentary film, the instructive film and the regular educational film.

The documentary film will give a concrete demonstration of the benefits of providence. The insurance companies will be in a position to furnish the required material in a rich and varied form. It will suffice, as an example, to show what the National Fascist Institute of Social Providence can provide in this connection in Italy.

Motion pictures of the public crowding the halls where the pensions are being paid and employment relief is being given; pictures of the out-patients departments or clinics where cases of trachoma are cured, maternity consulting wards and anti-T. B. dispensaries;

pictures of sanatoriums and hospitals;

pictures of cure establishments with crowds of children, women and old men.

With a documentation of this idea, the public will be able to gather a notion which few have today of the number and importance of our relief institutions, all of which have come into being from the basis of social assurance. The up-to-dateness of the installations, the crowds of persons who flock to them and the comfort and medical and economic assistance they find there can well be illustrated.

Similar material can be supplied by other institutes of social assurance (unemployment, sickness insurance, etc.).

The thing can be carried further. The inside of insurance offices can be shown to the public on the screen. Offices that are not usually shown can be revealed with all their complicated organization, with the accumulations of papers and documents. The

public can be made for a moment to see a life of which it knows nothing.

Again, we can see the invalid, the sick person and the man who has suffered an accident in this own home and the family deprived of his support. We can see the members of the family getting ready to ask for the pension or the sickness relief. We can witness the arrival of the demand in the insurance office and follow the case through its various formalities until the money is paid.

Another type of documentary film is one which is intended to reassure persons regarding the financial solidity of the insurance company. It can show us the various investments the company makes with the money that freely or obligatorily pours into its coffers. These millions are employed in land reclamation, in the building of roads, harbours, railways under the control of and with the guarantee of the State, the work of the communes in building schools and looking after municipal hygiene. Millions are destined to the creation of entire quarters of workmen's dwellings in the big cities and small cooperative houses elsewhere; more millions still are employed in various social enterprises such as the reconstruction of districts damaged by earthquake, the small agrarian mortgages to war-wounded men, the land improvement schemes in the mountainous districts . . . to all these sums must be added investments in real estate with the notable contributions of Savings Banks and Insurance Institutions for the carrying out of city building and general improvement schemes.

The technical ability of the operators can obtain notable effects from this mass of documentary material. In the building of sanatoria, pictures can be made of the various phases of the construction so as to give a brief synoptical idea of the entire work and impress its importance on the spectators' minds. This is being done in the case of the huge sanatorium at Naples, which will have 1400 beds, and cost 40,000,000 lire.

The best kind of providence is that which

does not wait for the harm or injury to take action, but seeks to prevent it from the start. This means insurance, and especially what we call social insurance, and it must consider the question of prevention of accident injury and harm.

What better way is there of guarding against an evil than by warning the persons who is menaced?

In this department the task of the educational cinema is really a vast one, and must be concerned with diseases like alcoholism, venereal disease, malaria and tuberculosis, to mention some only of the more terrible scourges which afflict the health of the race. Here we have a huge mass of facts which can be brought to the notice of the public, a quantity of experiences and experiments which can be shown people in a cinema hall. The field of prevention of accidents during work and trade diseases is also rich in possibilities for documentary instructive material. I cannot in this brief note go into detail on this weighty and interesting question, which is worthy of a regular study to itself. I prefer rather to touch on other possible films which it would be desirable to produce in order to help to dissipate the serious state of ignorance of the public which unfortunately exists on the subject of insurance.

It is not at all necessary, nor even possible, for the technique on which insurance is based to be known outside the circle of specialists and experts. At the same time, everyone ought to have some few fundamental ideas on the accumulation of savings, loans, mortgages and insurance. A graphic representation of the growth of capital through the operation of compound interest, the tables of statistics of mortality, sickness and disability from injuries may not be easy to prepare, but is by no means an impossible task. Several tables or graphs of this kind could be prepared to meet the cases of different classes of people, according to the level of their education and intelligence.

Even if some of such prepared material did happen to be a bit above the heads of some of the spectators, no harm would be done.

An extensive literature of propaganda adapted to suit all classes and intelligences has come into being through the efforts of private insurance companies, while all the latest and most attractive means of publicity known to art and science have been used. This vast body of material which has come into existence in the ordinary routine of profit-seeking business with commercial ideas can provide us with notions which we may use for a loftier purpose, that namely of disinterested propaganda for provident work inspired by a pure desire for the public welfare.

Since example is one of the most efficacious means which the educationist can use, it is not an exaggeration to state that educational cinematography can find in every insured person an opportunity to be developed. If we could know the private history of some of our policy-holders or savings' bank depositors, penetrate into their domestic lives, learn the obscure tragedies of their families, share their hopes, fears and plans for the future, and make a vivid motion picture of it all, we should have at our disposal an inexhaustible plot with which to work. Where knowledge cannot take us, fancy may, and films of this type must be imaginative reconstructions of episodes drawn from the common life of every day.

I do not disguise from myself the fact that this programme has difficulties. Great technical ability and a great sense of art are required if pictures of this kind are to avoid banality and produce the effect aimed at. I recognize, in general, that the task of arousing the sense of providence, thrift and foresight is one of the most difficult that educational cinematography has to face; but at the same time, I maintain that it must not be neglected, and that experience, better than any *a priori* postulations, will show us the right road to follow.

Dr. LUCIANO de FEO, *Editor and Responsible Manager*

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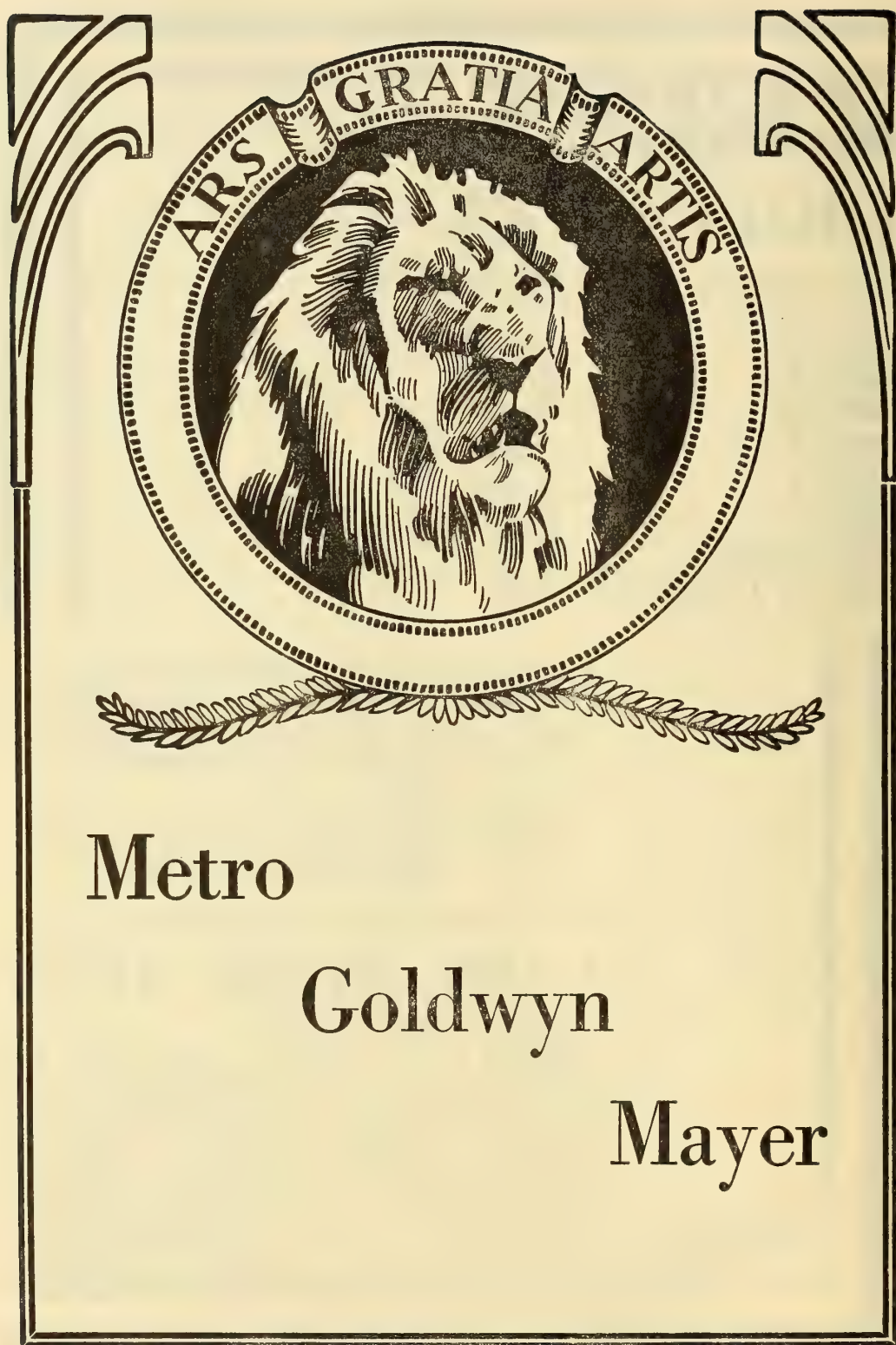
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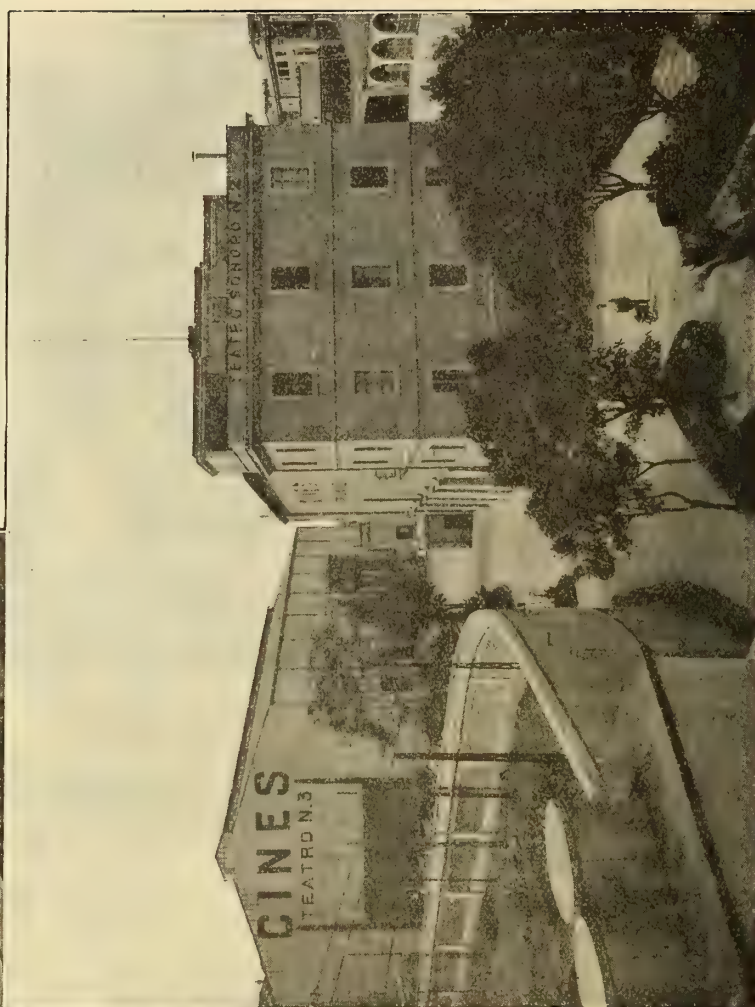
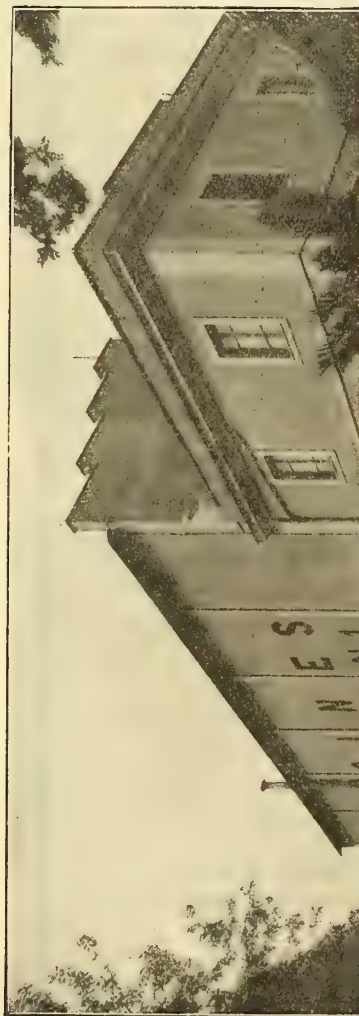
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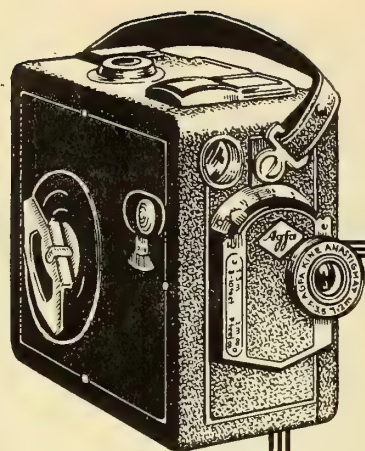


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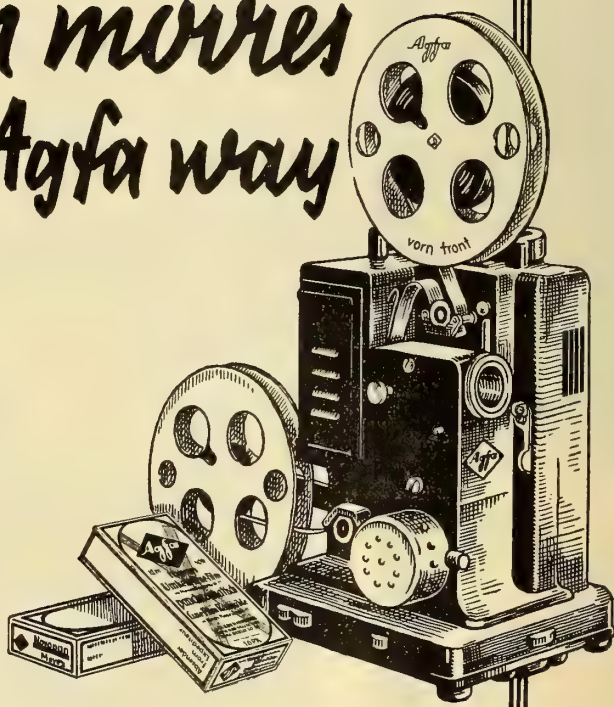
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LEAGUE
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OF
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THE CINEMA IN EDUCATION

STATE AND CINEMA — JURIDICAL FILM PROBLEMS —
NATIONAL AND INTERNATIONAL ARCHIVES — THE
CINEMA FOR DOCUMENTING THE LIFE OF THE PEOPLES — TECHNICAL FILM PROBLEMS

A. PERNA - L. GESEK - E. RÜST - A. NICHTENHAUSER - L. DREYFUS BARNEY - E. GOLIAS - V. VIOLA -
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Of all the new influences that are moulding human character to-day, none is comparable in the strength and universality of its effect to the cinematograph. Just as the past fifty years have seen a profound improvement in the general standard of intelligence in all civilized countries due to the educational and informative influence of the popular newspaper Press, so the next generation will find this process continued and expanded by the effect of the cinematograph upon the public mind.

The indirect appeal of the printed word to the mind has been supplemented by the direct appeal of the eye and ear. The modern sound-film is certainly one of the most powerful instructional influences existing in the world to-day.

For this desirable process to be carried on to the best purpose, consultation is necessary among the various organizations concerned. The best film-producer is not necessarily the best judge of the kind of film that the educator desires. By bringing together all parties concerned in this great work of stimulating the formation of the youthful intelligence by means of the cinematograph, the International Educational Cinematographic Institute is performing a valuable service to society.

As one who is director both of a large newspaper and of an important cinematographic news-reel company, I have always found that the closer the co-operation that could be brought about between these two apparently competing interests, the greater the advantage to them both. In the same way, divergences of view between the entertainment and educational interests are likely to be removed by the contact for which the Congress held in Rome this spring will provide an opportunity.

G. WARD PRICE.

THE STATE AND THE SCHOLASTIC CINEMA

BY

Prof. Amedeo Perna.

THE question of the cinema, when we consider it, as we should, in all its various aspects, is without doubt essentially a political one and therefore very complex.

The aims it is desired to reach, choice of productions and control over projectors and film material, preparation of the technical staff in handling films, supply of projectors and films, building up archives and film repositories, cinema censorship and enforcement of respect of educational laws in the interests of children and young persons are all problems which the state cannot fail to take into account. Equally, if not more important, are the questions regarding the formation of a mentality which recognizes the needs of the nation and can find the best way of satisfying them, vocational guidance, the necessity of furthering commercial and agricultural developments in various countries, the coordination of different private and collective enterprises.

If the cinema is, as we believe, one of the most potent means of ordinary and political education, owing to its suggestive and persuasive power, the State must concern itself with it and control it. It can offer great advantages when it aims at the elevation of the people, just as it be an instrument for evil when — operating among the uncultured masses who are ready to pick up the ugly side of things — under the cloak of representing the truth, it gives a false conception of life. It then becomes, even if involuntarily, a means of corruption and an incitement to violence if not actually to crime. Its influence is enormous.

Russia has perfectly understood it as a social power. We may say of it with Margherita Sarfatti (Review of Educational Cinematography January 1933) that it is the revolutionary fifth estate which cements the unity and universality of sentiments, creates a cultural link between different peoples, and penetrates deep down into popular strata of society.

Even the restricted scholastic cinema used in various grades and classes does not appear less important really, or less deserving of the direct interest of the State.

The young people of today who will be the men of tomorrow should be permitted to acquire the necessary aptitudes for a number of experience without, however, their being in any way subjected to an effort superior, to either their physical or intellectual energies.

The teacher must first of all be a convinced believer in the motion picture as a visual aid, and it is here that the action of the State is required for a work of preparation. The best way of reaching the pupils' mind is (as Horace Mann and Vidari have stated) "to make the eye rather than the ear work at the acquisition of notions. The eye is superior to all the other senses in quickness, precision and in capacity. It is the true connecting link between the external material infinite and the internal spiritual infinite". The teacher must be persuaded that the cinema not only allows a saving of time, but facilitates his task, since it increases the pupils' activity and makes study easier for backward children.

The cinema, when organized and not abused, can be of assistance to young persons in what may be called integrating the work of the family. In this respect, the scholastic cinema must be considered as one of the most potent means for the spiritual assistance of young people. Experience has shown us that it is far from easy to have this kind of assistance outside the school.

I will go further and say that if the scholastic cinema were organized in such a way as to place in their proper light several problems connected with dwellings, hygiene, commercial economy, land improvement schemes, industrial output, etc. the State would have an opportunity through the young people themselves of carrying on a work of excellent civilizing propaganda for families, combating dangerous habits and prejudices, inducing at the same time, through the influence of the screen the populations to adopt a manner of life more in keeping with modern needs, as well as a profitable work within the sphere of their own activity.

* * *

How can the State develop its action with regard to the scholastic cinema?

We know through the medium of the Review of the I. I. E. C. and similar publications, what has been done in all the nations by the State or semi-governmental bodies, or cultural associations for the scholastic cinema.

The United States, Canada, Japan, Belgium, Spain, Germany, England, France, Czecho-Slovakia, Sweden, Denmark, Roumania and many South American States, as well as Australia, have realized the importance of the educational film, and made special provision for the scholastic motion picture. Russia has made it one of the essential instruments of her political system. Fascist Italy has made provision for the use of the film for didactic and educational purposes through the activity of the ministry of National Education (General Direction).

The Ministry of Agriculture has also set aside in its budget an annual sum for agricultural propaganda by the film in city and country. The Fascist government has created the L. U. C. E. Institute, which, as is known, has served as a model for other similar institutes recently founded in other countries. (Masaryk in Czechoslovakia; British Film Institute in England, etc.). The L. U. C. E. Institute does admirable work in the way of encouraging a wider use of the teaching film and the use of the motion picture in scientific research, while it is charged with looking after all those state activities which are connected in any way with the educational and teaching film. It is part of its task to coordinate, in collaboration with scholastic institutions, the various systems of didactic projections for students, supplying the requisite material. Moreover, by the law of April 3, 1926 (N° 1000), an obligation was placed on exhibitors to include a certain number of pictures of an educational and national propaganda and general culture character in their programmes.

Much has been done, but I do not think I am wrong in stating that the scholastic cinema has proceeded slowly and somewhat disorderedly owing to serious obstacles of a financial nature. It will not be useless therefore to refer to some of these questions.

One fundamental matter for the state to consider in connection with the use of the motion picture is :

What films should be shown to the pupils, and how are they to be produced and acquired?

The question is a complicated one, since among other things, it requires the possession of proper scientific knowledge which it is not always possible to have, and affects, not only didactics, as we have said, but the whole essence of the question of the education of the young. The choice of pictures already on the market is a difficult matter, as is the preparation of fresh films. We must always remember that every visual image making a strong impression on the fantasy awakens a great number of ideas and senti-

ments which are bound to exercise an enormous influence on the formation of young persons' characters, especially in the case of children and adolescents.

It is therefore necessary for the State, while leaving the professors at liberty to indicate or even choose films best suited to the special requirements of their teaching, to intervene through its administrative and technical organs to regulate the production and purchase of scholastic pictures and to superintend their quality.

Plan of Work. Special commissions of scholastic authorities and experts, drawing advantage from their many years' experience ought, as happens in other countries, to establish for the different grades and classes, including the infants' classes, and also taking account of the sex of the children, what sound and silent films, — preferably non-inflammable — can be useful for the study of the various subjects. They should also decide which pictures may have an educational value and are capable of providing an adequate general knowledge, of human activities. They should also, by taking account of the progress of technique and scholastic requirements, determine which types of projectors are most convenient and most easily handled in schools. Other matters which should be within their decision include the formats of films, the reduction of existing sizes with the general object of obtaining a uniformity in size which would permit of an exchange of films on a large scale. The excessive length of films intended for scholastic projection should be guarded against, and, besides accuracy in documentation, a minimum of artistic qualities should be insisted upon to render the pictures acceptable.

These commission ought to put forward special suggestions for talking films intended for export and for propaganda of the national language.

Let us not forget what Lord Hailsham recently said : " Nations are judged accord-

ing to the type of film they produce, and the future of the cinema is therefore rigorously linked up with the State ".

If we take account of the financial possibilities in connection with all the state activities and the requirements of the various schools, as well as of the desirability of the cinema penetrating into the loneliest rural centres, the commissions ought to decide when it is the case to give projectors and films and where only projectors when there is an opportunity of obtaining films otherwise than through the state. In some places it will prove more convenient and economical to leave the projections to travelling cinema units.

What is wanted then is a general requirements plan. To satisfy this, the State can make agreements directly with producing firms which, being sure of their sales, will produce under better conditions and with better results. Another way would be to entrust some semi-governmental body with the production and distribution as is done successfully in Italy and elsewhere. It is clear that the State, if it is to give direct orders, must by means of its various bureaux etc., have a proper knowledge of the possibilities and aims of the cinema trade, and especially all that is connected with production in series and standardization of machines. Nor should it be forgotten that the intervention of the State will certainly help in directing the film towards better and more suitable art and science forms, just as the State's interest, whether direct or indirect, in the purchase of didactic and scientific material, or in the choice of text books contributes enormously to a better production of both.

Financial Means. A complete plan for the utilization of the cinema in schools would require a very large number of projectors and films and a heavy outlay which, owing to the prevailing economic crisis, no nation would care to face all at once. The fear of this expense — which has probably been exag-

gerated — has been so strong and general that many schemes have been retarded or indefinitely postponed in the belief that the advantages to be derived from the use of the motion picture were not worth the heavy outlay. Now that we have a better idea of the advantages of the motion picture, and technique has given us reduced size and non-inflammable films, the financial aspect of the question has considerably changed. The necessity of introducing the motion picture into the schools is generally recognized, and every attempt is made to find the requisite means. In any case, it is evident that a number of years will be required for the full solution of the problem.

The use of the motion picture is not only an advantage for the young but also for all who are interested in it, from producers to publicity firms. It is therefore quite fair that all should take a share in the expense of spreading the use of the scholastic film. The State ought, at any rate for the first few years to set aside a regular sum in the education budget for scholastic cinematography so as to give it every chance of developing. The pupils and students of middle schools and institutes of higher education might be called upon to contribute voluntarily to the supply of projectors and films, especially, in small towns and rural centres, as is, as a matter of fact, already done for the furnishing and decoration of local schools.

Proper legislative measures might secure the participation in the expenses of the public cinemas (this is already done in some countries) as well as the big producers.

Film Repositories. Even with liberal contributions from the foregoing, it would be impossible to supply all the classes of the elementary and middle schools with the requisite projectors and pictures for all teaching subjects. Thus cinema libraries or repositories of films become necessary. They should be organized in a rational fashion, both centrally and for outlying districts. They should be vital, worth-while institutions and not merely museum archives. Among state

cinema libraries or repositories, we may mention the cultural repository of the Italian L. U. C. E. Institute, the Masaryk Institute in Czecho-Slovakia, the Bureau attached to the French Ministry of Agriculture, and the various film libraries connected with the departments of Commerce, Agriculture, etc. in the United States.

While such institutes ought to be organized in the big centres so as to be in a position to supply many schools easily and with small expense, on the other hand, such bureaux are more needed in the small rural centres where there is a greater need for the film to bring its image and echo of palpitating life to the world of peasants and artisans. The number of schools served by the various repositories ought not to be numerous, if we want the pictures to arrive quickly and at the right time at their destination. This means that until all schools have a regular stock of motion pictures, the number of small film repositories serving groups of popular schools must necessarily be large. The organization and operation of cinema libraries — which are real circulating libraries of films — could be entrusted to scholastic inspectors and didactic directors, provided such persons were acquainted with the use and working of projectors and pictures.

It may be pointed out here that experts are divided in their choice of film repositories, some preferring one kind, and others another variety. Some didactic experts are all for regional cinema libraries, depending on departmental or provincial deposits, which in turn are supposed to draw their collections from a national central repository, which takes upon itself the work of choosing pictures and distributing them. Other persons favour specialized libraries for the various branches of human science, while there is a current of opinion that would give film repositories a general character. They ought, that is, according to this view, to collect all kinds of motion pictures without distinction and without regard for the special object for which they were originally produced.

It is my opinion that film repositories ought to be run like scholastic libraries, that is, under the care of the State and the responsibility of the directors, but with a certain freedom of action and a stock of pictures suitable for the schools to be served.

The more important film repositories, owing to their special work and more complicated nature, could be placed under the direct authority of the state or provincial bodies. Such repositories ought to be fitted up with a laboratory for the repair, examination and handling of films and for repairing projectors.

The travelling cinema would be sufficient for the outlying rural centres, if properly organized and entrusted to experts of good will.

National Committee for Cinema Researches.

In the matter of institutes of higher teaching, the State's action ought to be limited to providing the necessary funds for organizing visual aid teaching and for encouraging scientific research. The age of the pupils, the nature of the curriculum of studies and the special competency of the professors would render the direct intervention of the State unnecessary for such matters as choice of films, and their utilization. In Italy as elsewhere, the motion picture has come to form an auxiliary part of the teaching in university courses through the initiative of the faculty.

On the other hand, it would be an excellent idea if, as has been proposed in Italy, and it would appear actually done in California and elsewhere, a National Committee for cinema research came into being. The task of such a body would be to coordinate, encourage and subvention scientific researches in which the use of the motion picture is essential. Such committees ought, moreover, as far as possible, to keep in contact with all the national and international organizations interested in the widest possible use of the cinema in art, industry and social and political life.

Collaboration of Public Bodies and Private Individuals.

It should not be thought, however, that the State must acquire a monopoly of the scholastic film. The State, conscious of its duties, will seek to provide for the most urgent educational and didactic requirements independently of the action of other bodies, but it is obvious that the State, which cannot look after everything, must be grateful for the cooperation of cultural associations having as their chief aim education by means of the motion picture. There are a number of such well deserving associations in every country. Amateur cinematography too ought to be encouraged, as should the foundation of juvenile organizations for cinematography of the type of the Italian University Students Branches.

It would be a good thing if, by means of proper coordination, all the individual and collective forces of a country were placed at the disposal of the State for the welfare of the schools.

We could thus have recourse in our work of spreading the use of the cinema in rural centres to forms of scholastic cooperation like that which has come into being in France in the Jura, or to other institutions having the definite object of bringing the educational motion picture effectively and periodically into the schools. Certain public or private institutes or educational establishments might be entrusted with studying the effect of cinema education in certain definite branches of science for which they expressly exist by law. The cooperation of scientific, industrial and commercial firms might be secured for the preparation and production of didactic or vocational guidance pictures. Such cooperation might be secured from naval, war, engineering, medical, biological, chemical institutes and also from art and science museums, from zoological and botanical gardens, libraries and archives, iron works, silk factories, mines, banks, etc.

As experience has shown, it would also be useful to hold national and international exhibitions of films and film apparatus, and

to give lectures illustrated by films to which professors of each subject and type of school could be invited.

Advantages of no slight importance would also be obtained if the promoters of scientific expeditions or religious missions allowed their pictures to be shown.

Coordination. Cooperation to be effective must be well organized, and this can only be done by the State which can concentrate and direct the national energies. The State, both directly and by means of national institutions under its immediate control, must develop an activity along lines such as govern the working of the LUCE Institute, for instance and the British Film Institute that is :

It should be a central bureau of information for all that concerns production and renting of scholastic films ;

It must act as technical organ in all that concerns the purchase and renting of apparatus and films and systems of distribution and projection.

It should act as a coordinating factor between the big commercial producers and the wide circles of persons and institutions interested in cultural and educational applications of the motion picture.

It should also encourage and assist, through the agency of its technical and administrative bureaux and departments, research on the use of the cinema and sound and talking film apparatus.

It should contribute to the formation of national film libraries or repositories and the maintenance of a catalogue of all films of recognized educational and cultural value.

It should establish a widespread control to trace and report on all films of a didactic and educational character likely to be useful for schools.

It is obvious that it is not within the bounds of our task to go into the details of how all this organization and work should be prepared and carried on. There is too much to say in a general way and not enough

in a particular fashion, unless we know the details of the various cases in which the intervention of the State might be desirable, either directly or indirectly.

It will be better worth while to refer to the formation of historical archives, the compilation of catalogues, the control to be exercised over films, transport, etc.

Archives. Little has been done so far for the formation of historical film archives, although the necessity for such becomes more apparent every day.

The matter has, as is well known, interested the I. I. E. C. from the very beginning of its activity, and has formed the object of researches and inquiries undertaken in cooperation with the Intellectual Cooperation Committee of the League of Nations. I am certain that as usual, the work of the I. I. E. C. will be crowned with success. Meanwhile, since many of the difficulties for the creation of archives have been overcome owing partly to the introduction of non-inflammable films and sub-standard pictures, it would be a good thing if every nation, following the example of England, Russia, France, Austria and Holland, would take steps to prevent the loss or dispersion of the valuable film material existing, especially that of a scientific character. In a short while, a national phono-film archive will be formed in Italy which will be a regular historical archive of sound and talking pictures. These archives or repositories ought, in my opinion, always to have a didactic-educational section and to be formed in institutions of higher education or museums of some importance so as to provide a means of completing the general culture of the public. In addition to the state archives, which could be of an historical character principally, there could be formed general film repositories or even specialized ones along the lines of what is being done in the United States.

The State ought always to have the right to issue regulations regarding the formation

of archives and repositories. One of such regulations might well be an obligation on all producing firms to deposit one or more copies of each of their films with the State archive much in the way that obtains with the book trade and the legal obligation to deposit a copy of every book published with certain state libraries. Such a regulation could only be enforced, however, when the cost of films has considerably decreased. Another regulation might be that original pictures which the owners do not intend to make further use of could be ceded to the State archives which should be empowered to receive all film material offered them, entrusting the selection and cataloguing to specialized bodies.

Catalogues.

There is a lack in most countries of state organs for spreading information and knowledge about the scholastic cinema and for engaging in propaganda for the didactic motion picture. The work on these lines undertaken by some governments remains therefore generally unknown to other states and to experts in general, who, as a rule, only occasionally hear of such initiatives through didactic or cultural publications which publish fragmentary reports, news items, circulars, etc.

A proper catalogue of films is what is required for putting cultural cinematography on a solid basis. What we have at present is incomplete, and there is no adequate information about the great mass of short films, among which we find many pictures of great interest that are utterly forgotten. We ought to proceed to a general examination of the whole situation, followed by a regular cataloguing of all those films having a cultural interest and, in particular, those interesting the school. Here too a rationalization of work would be necessary, a revision of the sporadic efforts of the last years. The big moving picture producers could contribute financially, as well as all those official and semi-official organs which are concerned with the cinema in different countries, and

are therefore in a certain way interested in the publication of such a catalogue. Apart from a State film catalogue, we could very well have the catalogues of national institutes which are engaged in producing scholastic films on the lines of those issued by the Italian LUCE institute and the catalogues of the various film libraries. In order that catalogues may prove really useful to the schools, it will be necessary that foreign didactic and educational pictures are exempted from customs dues and the operation of quotas following proper international conventions.

Together with the catalogues, a wide publicity and circulation ought to be secured for those publications, especially the Review of the International Institute of Educational Cinematography, in which experts point out everything that is worth pointing out in excellence of work and novelty in the domain of the motion picture.

Censorship.

Regarding the control which the State ought to exercise over films to be used in teaching, it should be noted at once that it is not possible to establish a legal system which will apply equally well to all countries, except perhaps regulations affecting imports and exports and quota systems.

At the same time, we must face the question if a central censorship bureau is necessary for every nation. Although a single censorship bureau is desirable, I am of the opinion that from the practical point of view it is better to decentralize, entrusting the censoring of films to local commissions composed of technical, administrative and political persons, the intervention of the latter being required especially when educational rather than purely didactic pictures are being examined. Films should not be examined only on moral grounds, but also for their precision, correctness and good construction, for their suitability for the purpose they are intended to serve, their historical truth, their technical visual qualities and their

general efficacy in promoting the intellectual and practical activities of the pupils.

The control or censorship bureau should also ascertain — on request of the interested parties — that authors' rights are being duly protected, so that pictures of real didactic and educational value are not, for instance, ignorantly mutilated. Referring to this matter of authors' rights, it is becoming clearer that it is necessary to establish a federation or confederation of film authors and producers to form part of the General Confederation of Artists, at least as far as Italy is concerned.

Some sort of intervention might be made in the actual production of films, and the Teachers Council or College ought to have a say in choosing pictures, as it does at present in the matter of scholastic text-books.

With regard to foreign films, these ought to be allowed free circulation, though we must not forget that each people has its own artistic ideas, which it likes to find in its films, together with other concepts and facts which illustrate the national tradition, and the great men of the nation. These are preferences which must be taken into account.

Transport. This is naturally divided into national and international transport. At the present moment, it will suffice to consider the former, for as things stand at present, there is little opportunity — save in some rare instances — of organizing the transport of pictures between different states.

An inquiry carried out by the I. I. E. C. on the question of despatching films from place to place ascertained that, without taking account of the difference of cost according to railway postal rates, the expense bears heavily on the renting price of the film, and prevents an easier and more extensive circulation of cultural and educational pictures. It is therefore to be hoped that at least films declared by a competent national or international body as having a scientific,

cultural or educational character, may enjoy a special postal and railway tariff. This conditional state of things should be allowed pending an international regulation enforcing the recent customs convention approved at a meeting of the League of Nations on a scheme sponsored by the I. I. E. C.

In the matter of facilitations, prizes, awards etc. it is known that every state provides such from time to time according to the requirements and conditions of the film market.

Cinema Didactics. The duty and possibility of using the cinema in the education of young persons ought not to mean that they should be subjected to work of a heavier character and of a nature to interfere with their proper amusements and physical exercises.

The use of the cinema in teaching has created, it may be said, a new pedagogy which ought not to be in opposition of any kind to the older pedagogy, but should, on the contrary, absorb and improve it. The motion picture places the pupil at once in contact with things as they really are and therefore rapidly awakens many new mental images, and favours the inception of new ideas with a closer connection between them. The teacher in many cases no longer feels the need of spending time in long and often useless descriptions, which have to be repeated continually, with fatigue for pupil and teacher.

The thing becomes more evident if we think of the schools in which the motion picture ought to be more widely utilized, that is, in the middle schools, the elementary and the infants' schools, as well as in technical and trade extension courses, in evening schools, and popular university lectures, where the technical language is a constant and far from negligible difficulty. In these schools, the screen must transform culture inculcated with a verbal and intellectual system into a direct culture education by means of the picture.

I am repeating things which are well known, I am aware. If we could project scenes of daily life, as it is really lived, scenes from the home of a modest family, or an agricultural undertaking, or a factory, we should not only spare a great quantity of explanations of a more or less convincing character, but we should fix the attention of the scholars on facts which they would probably never forget. Moreover, all technical work seen on the screen, is likely to lose its heaviness and its unpleasant aspect when considered as an isolated phenomenon in its crude reality, so to speak. On the screen, it gains in liveliness and acquires something of the nature of a productive necessity, and hence something pleasurable.

There is therefore the necessity for the State, at any rate to begin with, to provide some form of instruction regarding the best way to utilize the motion picture in connection with scholastic programmes. A film, it should be remembered, ought only to be projected when it is certain that its screening will provide a genuine didactic aid such as to justify the expense and time required in producing and projecting it.

The question arises spontaneously here : — if we introduce the cinema widely into the schools, shall the text-book preserve its original structure for the individual subject matters ? We have not sufficient experience in the matter to furnish a guide, since, at present, films are only projected occasionally, that is, without a pre-established plan, consequently we cannot answer the question with certainty. Everything goes to show, that, at any rate for certain subjects, the text-book will have to undergo alterations in its composition, if it is not to lose a great deal of its importance.

Another question now arises. How is the teacher to acquire the requisite preparation to be able to use projectors and films with didactic profit ?

There can be no doubt that such preparation is necessary, and that the State ought to take it in hand, by establishing courses of

study for future teachers and professors, just in the way that special technical training for experimental demonstrations is given to men intended to illustrate scientific experiments in scientific courses. The visual teaching side of such experiments is one of the most important. The preparation ought to permit the professor to carry on his visual teaching with healthy, didactic criteria. Such courses for film teachers should go into all the matters connected with the preparation and working of projectors and film apparatus, the way to use them to obtain the best results, the film material to use in different cases and under varying conditions. Information on the types and formats of films, projectors, lenses, slides, which are to be found in the market should be given. The future teacher by the film should see how the motion picture is inserted in the ordinary lesson with the text-book and other didactic aids. He should learn film technique, photographic and cinematographic technique, how to buy material, and he should be informed of the numerous publications issued in connection with the film and cinema questions. The curriculum for such teachers ought to include discussions on the influence of the cinema on children and how best to interest them without fatiguing them.

The preparation courses ought to be given so that the students have access at the time to laboratories where there is the possibility of examining and studying questions touching the value and use of the educational film.

The State should arrange in its general plan of instruction some special courses for elementary teachers, as has been done in America, France, and Germany, though courses of this kind can be given also by scholastic associations and cultural bodies engaged in motion picture work as occurs in England, Austria and Germany.

The courses could be completed by the so called "cinema weeks", which are regular concentrations of all that is being done in the field of the scholastic cinema.

**Study of the Effects
of the Cinema.**

To secure a better choice of films for projection and a better development of the cinema, the State must exercise a surveillance over the effects of motion pictures. Periodical reports of scholastic authorities attached to the inspection of schools, and questionnaires like those issued by the I. I. E. C. and the British Association, the results of which were referred to in the *Review*, ought to be of assistance to the State for a better and more widespread use of the motion picture.

In conclusion, we can say that the State, if properly conscious of the importance of the scholastic cinema, ought to do everything to encourage its use in the schools in the place of other visual means, such as graphs, drawings, geographical maps, models and

collections of minerals and biological specimens. In almost all countries, the State which encourages scholastic excursions and instructional travel, offering occasions to put young people in direct contact with real life, ought to do everything to increase to the maximum degree the effect and value of this new educational instrument in the schools by means of suitable legislation, to advance the cause of the cinema which convinces us by its truthful representations and without effort and with no undue expense, which takes us to far off lands and reveals to us the life of our fellow beings under different skies, which helps our progress in research, shows us the harmony of the universe and leads us to self-improvement with the powerful aid of example.

THE RECREATIONAL FILM AND ELEMENTARY SCHOOL CHILDREN

(LEGISLATIVE MEASURES IN AUSTRIA)

BY

Dr Louis Gesek.

Motives for Protect- ing Young People.

THE fundamental base of the Austrian law on the cinema is the decree of the Ministry of the Interior and the Ministry of Public Works of September 18, 1912 (R. B. B. L. N^o. 191) dealing with the organization of public cinematograph spectacles. The authority behind the decree and the cinema legislation of the greater part of other federated states show that the moving influence behind it was the desire to take measures of defence against the dangers of the motion picture. The future development of the film which has grown at a tremendous rate without restrictions had to be directed in an orderly direction. This was the object of the decree.

The line taken by the decree, which was, with a few exceptions, the line taken by individual federal districts is inspired by the dominant idea: how can we preserve the people from the dangers connected with the film both as regards how these dangers affect their bodies (fire, etc.) or minds (moral damage)?

The particular sensitiveness with which youth reacts to dangers in the period of its physical and spiritual development demands special protective measures. These measures are included in the decree cited and are to be found in practically all legislations. Differences appear in connection with the definition of the term "young" and "youthful" or "adolescent". The age limit

oscillates between 16 and 18, and there are differences of phraseology to be found in the local legislations, as to the significance of "a film suitable for projection before young people".

Definition of Child or Adolescent.

The Austrian legislation does not take the scholar undergoing obligatory education especially into consideration, but "children". It uses the collective term "young" to persons who have not yet completed their sixteenth, or seventeenth or eighteenth year, as the case may be. As is understood in ordinary language, all persons under determined age limits are included in this category, and consequently children not yet obliged to attend school as well as children exempt from such obligation and also adolescents. All the legislative regulations regarding recreational films and young people refer in Austria, with two exceptions, to the group indicated and not only to children under obligation to attend school.

Regulations on the Cinema in Lower Austria.

In lower Austria, the question of the attendance of young people at the cinema is regulated by various ordinances. The decree of September 1912 on the cinema already quoted, lays down in paragraph 23: *Attendance of Children and Young People*: "Children and adolescents below the age of 16 years (completed) can

only be admitted to cinema performances which have been declared suitable for children and young people according to the regulations laid down in paragraph 18, comma 2 and also only when such spectacles end before 8 PM.

Paragraph 18 refers to the concession of an approval of representations of films, and is included in the section *Film Censorship*. Since the declaration of the Constitutional Court of Justice of June 23, 1926 which establishes that the principle followed by the provisory National Assembly on October 30, 1918 (Official Gazette N° 3) — “any censorship, as being contrary to the citizen’s fundamental rights is abolished” — film censorship is also abolished. As a result, paragraph 18 and the corresponding reference to it in paragraph 23 have become without effect. This clear cut decision of the Supreme Court decides on the question under our consideration that all the regulations of the decree on the cinema, even those regarding projections for young people, continue to be valid in law, but that there does not exist any ruling to decide which films may be shown to children.

Ordinance of the Lord Lieutenant. In Lower Austria, the ordinance of the Lieutenant of the Archduchy *unter der Enns* dated June 1916 concerning the issue of prohibitions by the police, in order to remedy the insufficient protection of young people, deals with cinema attendance and lays down in paragraph 6: “*Children and young people are forbidden to frequent public cinematograph spectacles*. Cinema owners and exhibitors are forbidden to allow the entry of children and young persons into cinema halls. Only those projections especially prepared and intended for young persons and approved by the authorities and clearly indicated as such, may be attended by children and young persons”.

The regulation further declares in article 9 that by adolescents are to be understood persons of both sexes who have not yet completed 18 years.

This notice must be affixed in a clearly visible position in every cinema according to article 10. Transgressors will be punished by the district political authorities with a fine up to 200 shillings, or with imprisonment up to 14 days.

This ordinance is rendered more explicit in an edict of July 15, 1916. It is laid down: “The admission of children and young people to performances not specially approved by the authorities as *spectacles for young people* is forbidden. This holds good even if scholastic pictures declared specially suitable for children are being projected at the same time in such halls or theatres.

Requests for concessions for spectacles for young persons must be addressed, together with a copy of the programme, to the political authorities of the district who can grant their approval of such representations and make them good for even the youngest children if they see fit, also fixing special dates.

In any case, paragraph 23 of the decree on the cinema of 1912 which lays down that children and young persons can only attend performances which end at eight P.M. remains valid.

This regulation, the most definite of its kind, sets out to render the attendance together in cinema of children and adults impossible. The projection of a film adapted to young people may only be witnessed by young people when the projections have been declared by the local authorities of the district as being specially for young folk, that is when it is reasonable to expect that adults will not be in attendance.

Such regulations aim not only at preventing the projection of unsuitable films for the young, but also the presence together in dark halls of adults and young persons.

Since the censorship created by the decree is abolished, it is the district authority, at present which must decide in an independent fashion which pictures it intends to permit in projections for the young. If the authority has no report from anyone on the suitability of the film to guide it in its decision, it must charge some one to see the picture.

Application of the Regulations in Various Parts of Austria.

This ordinance of the Lieutenant which goes back to the war is, however, only in force in Lower Austria. In federal districts which have no laws of their own on the cinema, and where such matters come under the effect of the decree of 1912, decisions regarding films that cannot be shown for young people are chiefly in the hands of the local district authority. The various federal cities which the decision of the Supreme Court absolved from enforcing the central law have faced the situation in various ways.

The ways chosen include the following :

(1) A local cinema law has been applied. This system is in force in Styria, the Tyrol, the Voralberg and Vienna.

(2) The rulings of other cities of the confederation are applied. This possibility is contemplated in all the special laws of the various cities and districts, with the exception of Vienna. In the decree on the cinema, paragraph 21 provides a basis for working out this plan. It is the way in which things are done in Burgenland, Upper Austria and in part of Salzburg.

In the particular cities, towns and districts, the regulations in force are applied in this form.

BURGENLAND. — In Burgenland, the decisions taken in other federal districts are generally recognized by the authorities as are those made by the censorship bureau of the Ministry of Instruction regarding the suitability of films for young people. Since the majority of pictures shown have their first view in Vienna, where they are previously examined by a magistrate, his decisions are as a general rule followed in Burgenland.

A bill has been recently laid before the Burgenland Diet concerning the cinema that recalls the law obtaining in Styria (to be considered later). This measure proposes to make the presentation of all films introduced into the country obligatory, and stipulates that a special bureau, created by the local government, shall examine such films. The

chief task of the bureau would be to examine motion pictures intended for showing to adolescents.

CARINTHIA. — By the decree of May 23, 1933 the obligation to present films to the license concession bureau of Upper Austria was reintroduced. It was also decided that the government may concede to other authorities, whose judgments are recognized in Upper Austria full faculty to grant license of approval. By means of a notification of the District Government of Upper Austria, dated May 23, 1933, the decisions of the censorship bureau of the Ministry of the Interior on the suitability of films for young people were recognized. This ordinance makes a distinction between children of legal incapacity (that is, according to law, children until they have completed their fourteenth year) and young people (adolescents) that is young persons between the ages of 17 and 18. It lays down that until some other decision has been taken by the censorship bureau, *all films recognized as instructive films* may be projected before *children and young persons*, while *films recognized as educational films may only be shown to adolescents*.

A decision given regarding a picture by the censorship bureau of the Ministry of Instruction is regarded as rendering necessary the presentation of the film to the bureau for issuing licences for Upper Austria (therefore to local government or district police).

Since instructional and educational films only form a fraction of all the motion pictures presented, the majority of the decisions lies with the local government, which is, in effect the district police.

In this connection, however, the local government has allowed it to be understood that, in practice, decisions on the suitability of films for young persons are recognized, even if such pictures are not specially prepared for strictly instructional or educational purposes.

Moreover, since the Ministry of Instruction makes no distinction between children and young persons in the matter of films for

the same, it may happen that in Upper Austria educational films classified by the ministry as being special films for young persons may not be allowed to be shown to children.

At present no other decisions are recognized than those of the ministry of Instruction. Moreover, similar to the ordinance in Lower Austria to provide against the insufficient protection of young persons, Upper Austria has a decree of the Lieutenant for the Austrian Archduchy *ob der Enns* of July 14, 1916 which in paragraph 6 establishes that attendance in cinema halls is forbidden to children of legal incapacity, and to young persons even if accompanied, with the exception of those special spectacles already expressly approved of for Upper Austria as being suitable for children and young persons.

"For children of legal incapacity (under 14) attendance at theatres is forbidden, even if they are accompanied by adults, with the sole exception indicated above. Parents, guardians and those looking after children permitting children to frequent theatres forbidden as above are liable to punishment".

SALZBURG. — In Salzburg, the Federal Government Bureau or the political authority of the district, and more particularly the Federal Direction of Police at Salzburg, nominally the government of Salzburg, decides which pictures may be seen by young persons. Apart from the decree, an ordinance of the political authority of the district, dated April 5, 1923, lays down that children and young persons up to the age of 16 (completed) may only frequent performances and projections which have been declared suitable for young persons and are finished not later than 8 P. M. Children can attend cinema projections only in company of adults charged with looking after them, except in the case of day projections specifically set aside as spectacles for students and young people. The distinction made between children and young people refers only to their attendance at cinemas, and does not imply any particular classification or criticism of the film.

Legislative Ordinances in Various Districts.

The federal districts of Styria, the Tyrol, the Voralberg and Vienna have laws of their own on cinema performances.

STYRIA. — The Styrian law lays down that film projections may only be witnessed by persons who have completed 17 years of age. Children in arms under three years of age may be admitted. Persons excluded by these regulations (that is children and young people from three to 17) can only be present at film projections declared suitable for young people, provided such projections are over by 9 P. M.

The government of Styria decides as to the suitability of films for young people. In the regulation for enforcing the execution of paragraph 14 of the federal law of May 7, 1930, this right was devolved by the Styrian government on the Police Direction of Graz, which is expected to seek the opinion of federal scholastic inspectors. The Police may forego the censorship of a film and issue a licence to project it if another competent authority in the territory of the State has issued an opinion on the suitability of the picture: It is especially laid down in the regulation for the execution of paragraph 14 - par 1, comma 2 - : "Films examined by the Ministry of Instruction are exempt from a fresh examination".

In paragraph 2, it is laid down that the Ministry of Instruction must issue the certificate for a film, which certificate must state if the picture is suited for young persons, if it possesses instructional or educational value for the people, if it tends to assist the nation's economy, or the national health or culture of the people. On the strength of this certificate of the Ministry of Instruction, the Police Direction of Graz grants the permit to project. The Police can, however, subject the picture to a fresh examination, or decide in a different manner on the suitability of the film for young persons without any fresh examination.

This order contains in paragraph 1 and in paragraph 2 a condition which obviously frustrates the desired object of rendering a fresh examination at Graz useless, after the

projection carried out in the censorship bureau of the Ministry of Instruction. When a renter who submits a film to the Ministry of Instruction is sure of projecting it at Graz, it is naturally more convenient for him to have the picture examined directly at Graz.

The local government may also forego a projection of a film when the content is known to the bureau through other channels (visits to the cinema by officials or witnesses worthy of belief) or when the film, in view of its instructional or educational value, is recommended by experts.

Who these experts may be is not established by the law. Reports on the education of the people issued by the Central Government, the censorship bureaux for films of the Ministry of Instruction, the National Scholastic Council, the German *Urania* and similar organs and institutions are naturally among them.

Every film which is projected in Styria must, according to this law, be provided with a certificate from the Police Bureau of Graz. Besides this, the exhibitor must communicate his programmes to the Police Bureau 14 days before projection.

THE TYROL - 1927. — In the Tyrol, the law of February 2, 1927 regulates the question. Paragraph 15 prohibits the employment of children and young persons in cinemas. Paragraph 16 lays down that projections which endanger the public tranquility, which offend religious sentiment or which have a deleterious or immoral influence on the spectators may be prohibited by the Federal Government. In addition to this protection for the entire population, paragraph 18 adds special regulations protecting young persons. It lays down that attendance at cinemas is allowed only for persons who have completed 17 years of age. Young persons who have not attained this age may only be admitted to see those films which have been declared suitable for young persons by the regional government after a Youth Council's opinion has been heard. The governor must call

men competent in the field of education and public relief to form this Council.

Spectacles which finish later than 9 P. M. can be attended by young persons. Paragraph 17, comma 2, lays down that films provided with certificates from other federal authorities or which have already been seen and pictures the content of which is already officially known through other channels do not need to be submitted for another censorship examination. Paragraph 1 of the executive regulation of April 27 limits this order to those authorities which have been indicated by the governor in the bulletin of decrees and regulations. This indication has not so far been furnished.

VORALBERG. — In the Voralberg too, the matter is regulated by a local law of December 22, 1927 on luminous projections. The law is on the lines of the Tyrol legislation as far as regards spectacles for young persons. The age limit is increased to 18 (completed). Moreover, it is laid down that spectacles at which young persons are admitted must end by 9 P. M.

In the regulations for enforcing this law, the *composition of the commission* is taken into consideration. The commission consists of a permanent employee of the territorial government of the Voralberg, a magistrate and three representatives of humanitarian institutions engaged in popular education and assistance for the young. Two substitutes are allowed for each member of the commission, and the members remain in office for three years. If the commission opposes the projection of a film, it must append a motivation in its report. A report of its decision must be communicated to the submitter of the picture and to three district lieutenants. *Strict observance of the foregoing regulations is insisted upon* in the Voralberg. Article 3 of the executive regulation lays down: that at all cinema projections a delegate of the district lieutenant, an employee, or some suitable person must be present in order to exercise a watch over the advertising matter, as well as to see that the regulations

regarding young persons are strictly carried out.

VIENNA. — The admission of young persons to films is a matter regulated in Vienna by the territorial law of June 11, 1926. Paragraph 8. Prohibition for Young Persons on States :

(1) Only persons who have completed 16 years of age may be present at film projections in cinema halls. Children in arms up to the age of three may be taken to such places.

(2) The competent authority will decide in an exceptional way on cases of persons under 16 being allowed to enter cinemas, and their decisions will be based upon the rules set forth in paragraph 7. After hearing the report of a council composed of the Bürgermeister, as governor of the district, and of other experts in the field of education and relief to young persons, the decision will be taken.

(3) The persons referred to in the preceding paragraph are prohibited from attending cinema spectacles in cinema halls or theatres which end later than 9 P. M.

(4) During a projection of films dedicated to young persons, according to paragraph 2, two seats must be reserved for members of the council and the magistrate's representative who must be duly furnished with identity papers.

(5) The exhibitor is under obligation to prove to the members of the Council and the representatives of the magistrate that he has complied with the regulations for the admission of the public according to the rules set forth in paragraph 2.

In paragraphs 1-3 the protection of young persons is regulated, while in paragraphs 4 and 5 provision is made for the necessary censorship.

Employment of Children and Young Persons. The employment of children and young persons in cinemas is forbidden by the decree on the cinema. The local laws of the Tyrol, the Voralberg and Vienna include this prohibition.

ADVERTISING. — Paragraph 25 of the decree on the cinema seeks to prevent the evil effects of objectionable advertising matter exposed in places accessible to everybody. It lays down : " Advertisements which stimulate the expectation of immoral projections or count upon a taste for shows contrary to morality are forbidden ; Example : " Evening for Men Only ", " Parisian Nights " or " Piquant Films ".

This rule has been included textually by the local Viennese law on the cinema in paragraph 9. The same idea is explicitly recalled in paragraph 21 on the Tyrol Territorial law with which the law for Voralberg is perfectly in accord. The latter regulation says : " In places accessible to young persons (therefore in the street) photographs of films can only be exhibited when such films have been declared suitable for young persons. " In the case of other pictures, the advertising matter must be approved beforehand by the government authority ".

Censorship Bureau for Films at the Ministry of Instruction. In order to have an objective and authoritative basis for the increased production of films which have a cultural value, the Ministry of Instruction instituted, with the decree November 5, 1930 a bureau for censoring pictures. This bureau is to " judge films submitted to it according to their didactic, instructive or artistic value for the people, and will classify them as instructive, artistic or popular culture pictures, declaring at the same time their suitability for being witnessed by young persons ". For some time, the classification of " artistic " has only been made on special request.

Schools' Right to Forbid Films. Moreover, according to paragraph 79 of the Scholastic and Teaching Regulations, the directors of schools and the scholastic authorities can forbid pupils to attend cinemas for a given period of time and for reasons connected with teaching.

This prohibition is independent of the kind of film being shown, and may therefore refer even to films declared suitable for being seen by young persons if the interests of teaching require it.

Predominating Considerations. To sum up the matter, we can see from this rapid glance at the Austrian legislative provisions for the protection of young persons in the field of the recreational motion picture that the governing principles inspiring the regulations are as follows :

(1) Only pictures should be presented to young persons which have been approved by reputable educational authorities.

(2) Evening attendance (after 8 or 9 P. M.) is dangerous for young persons, and therefore forbidden.

(3) The employment of young persons in cinemas is forbidden.

(4) Advertisements capable of proving harmful for young persons are prohibited by various severe laws.

(5) Decisions on the suitability of a film for young persons are not made by the central authority, but according to the operation of local laws.

Districts which have a legislation of their own on the cinema have further established an obligation to submit pictures from which exemption can be claimed only in determined circumstances. This obligation lies at the base of all decisions regarding the suitability of films for young persons.

Decisions are in the hands of the local authorities themselves, and do not lie with the local technical council, whose decision is merely in the nature of an opinion which the authorities are not obliged to follow.

Practical Result of Film Projections. If a firm wants to exhibit a picture before all the young persons in all the various districts and cities of the State, it must show it in Vienna first of all.

If declared suitable for young persons in Vienna, it may be shown everywhere in the territory of the district of Vienna. In Burgenland, Carinthia and Salzburg, the Viennese decision is generally accepted without there being any further need for submitting the picture again locally.

At Graz, Innsbruck and at Bregenz, the film must be submitted and shown again. Often the local decisions of these districts are not in agreement with the verdict of the capital. In Lower and Upper Austria, it is the district political authority which decides if a film may be projected before young persons. In Upper Austria, the verdict of the Censorship Bureau of the Ministry of Instruction takes the place of a fresh examination. The same thing holds true of Burgenland and Carinthia. In Styria such a decision may be recognized.

At the back of these diversities in applying regulations, etc., there lies the sound guiding notion that projections intended for young persons of the capital need not necessarily be suitable for a similar category of young folk dwelling in an Alpine Tyrol village.

The merit of the Austrian law in the cinema lies in the rigorous protection granted to young people.

Its defect lies in the fact that when the decree on the cinema of 1912 was quashed by the decision of the Supreme Court, the entire legislation took on a fragmentary character, producing a number of local expedients not in accord with one another.

The Tendency Towards Unification. In March 1933, the National Federation of Austrian Catholic Youth, in a petition addressed to the competent ministers requested the institution of a central bureau for the general censoring of films, such bureau to have also the faculty of examining pictures intended for young persons. The petition further urged that the minimum age for young people to be admitted to cinemas should be raised from 16 to 18.

Cinema Bureau of the A. G. Juvenile Federation.

The Cinema Bureau of the Austrian-German Juvenile Federation has recently prepared a list of basic principles for a regular cinematograph legislation in Austria.

Fundamental Principles.

The second and third of these fundamental principles are directly concerned with the protection of young persons and the increase in the number of films adapted to young people. The other principles touch the matter indirectly. It is urged that :

First Fundamental Principle : Each film or series of films ought, in the first place, to be considered for its spiritual content (like a book), and only in the second place as merchandise. The mere consideration of a film as a commercial object is not sufficient.

Second Fundamental Principle : Decisions regarding the permission to project a film in public cinemas and its suitability as an educational picture and as a film for young persons should be effective and applicable for the territory of the State.

These decisions could be emitted, if not by some newly created bureau then by the censorship bureau attached to the Ministry of Instruction.

The presentation of the film to this bureau should exempt the exhibitor or renter from presenting it for examination in other federal districts.

Third Fundamental Principle : In distinguishing the admissibility of a film for general public projection or for projection before young persons as well as in classifying a film as either educational or instructive, a clear

distinction must be drawn between films good for urban populations and films intended for purely rural districts.

For the carrying into effect of these regulations the state authorities in the department of popular instruction of the various federal districts must determine annually which districts towns and villages are to be considered as urban, and which as rural from the point of view of culture.

The application of these fundamental principles would regulate the question of the cinema in a central manner, and especially those questions dealing with the protection of young persons.

It is also in the interest of all persons or firms engaged in the film industry to assist in rendering the unification of cinema regulations possible, while it is absolutely necessary that all decision should emanate from one central bureau.

At the same time, the diversity of views existing between city and country districts must create a diversity in settling age limits) (16 for the cities and 18 for the country).

The other fundamental principles not referred to here are intended to assist the increase of production of instructive, educational, sub-standard size films and also to help in increasing the output of pictures for young persons.

These fundamental principles will shortly be laid before the central government.

Bills and draft regulations have also been laid before the governments of federal districts for the regulation of questions connected with the motion picture and the protection of young persons in connection with films.

CINEMA AND LEGISLATION

(*Editorial Note*). The problem of the cinema is not merely one of production and a revision of the values which it manifests from the national and international, didactic, and artistic points of view, but is especially a matter of safeguarding it from communicating those possible dangers lurking in the motion picture and capable of harming individuals and society.

Whence the necessity — ever since the film appeared in the public cinemas and became an instrument for the objects of teaching — of considering to what forms of control and inspection it should be submitted to allow it to be freely shown, without fear of harm, to children and adults.

Systems of control and safeguarding end by being systems protecting the film, since censorship, when properly undertaken by experts who are guarantors of perfect objectivity, becomes an arm against the producers themselves, forcing them to follow a rational criterion in creating works of art which hinders the occurrence of economic damage that might come from suppressions or mutilations, and permits free representation in picture halls. This of protection has, except in exceptional cases contemplated by sporadic legislative measures, nothing to do with artistic concepts which are left to the decision of the producer and his collaborators and the verdict of the public.

Three systems are in use in the various countries of the world. The first lays down that the state must take a direct interest in the problem and make the necessary provision through the government organs and determine the proper policy for safeguarding children, adults and society. The second system recognizes, in principle, the right to full liberty, but tempers it through the operation of unofficial organs which exercise a sort of semi-official censorship, and whose decisions are as matter of fact recognized by the police and the municipal authorities. The third system is based on the fullest kind of liberty. It does not tolerate any form of pre-release censorship, but allows the police repressive functions so that they can intervene when they deem it proper.

These three basic systems are adopted with certain small modifications or combinations in most countries.

The system of complete liberty and police power to suppress films is typically American, and is in use in almost all the states of the Union. The system which might be called semi-official censorship of

films is exemplified by the British method, as adopted by the *British Board of Censors*, a self-controlled organization of persons interested in the spread of good films, and indirectly, but necessarily, in a qualitative selection of the national output. As we have said, the decisions of the British Board of Film Censors have not the authority of law, but rather consultative value. The municipalities in whose jurisdiction the films are to be shown can accept or not the decisions of the Board. They are free to accept these decisions, or to reject them. In practice, the decisions are almost always respected.

The system which is the most widely spread in the world is, as we have said, the system of official prerelease preventive censorship either carried out by bodies created especially for the purpose, or by organs to which the power is delegated or by the police acting not to repress, but to permit.

There are a number of variants to these systems as, for instance, the regarding of censorship for adults and for children in a different light, or when censorship is limited to the intellectual and spiritual protection of children only. Some systems only consider the films shown in public halls, while others reserve their examinations solely for pictures intended for childish audiences; some are concerned with the ages of the children that can witness pictures, or sometimes even their sex. Sometimes the censors have to think of political and religious criteria, as well as moral and artistic considerations.

Without going into a particular examination of the various systems in force, it is doubtless more useful for the purposes of the Rome congress to consider synthetically the arguments pro and con, raised and debated at length by supporters of the two opposing methods, that is the liberal system which includes the last two methods referred to and the method of pre-release preventive censorship.

The supporters of the first theory maintain that is not conceivable in a period of liberty of commerce and industry to put into force coercive measures by the state, such as to impede the free development of intellectual activities and limit the possibilities of production by imposing iron chains that may be considered dangerous and too strict. These people maintain that censors are always or nearly always incompetent persons subject to personal opinions, and that if it is proposed to recognize logically the principle of an official censorship, we ought also to institute a series of specialized censorships for various aspects of life such as a military, political

and scientific censorship etc. to be directed only by experts who would lay down rules. It is further argued that this incompetence, which is more serious now that we have talking pictures in which words, sounds and music form an ensemble of art, and reveals itself in absurd mutilations which in any case are always unfortunate. It is also argued that the adult ought to be presumed to be capable of self-control and self-criticism, and that it is absurd to think of him as a person of low intellectual and psychical level, whose deficiencies must be made up by the state; that — and this is the chief argument of the liberal theorists — it is not exact to state it is the censors who in the past have and still continue to elevate the moral level of films, but rather the control exercised indirectly on the producers through the pressure of public opinion.

It is affirmed that the principle of *automatic selection* is the one which should prevail. This form of selection consists in leaving the spectator full liberty to see and to criticize in allowing him to crowd or desert the picture halls, obliging, in the latter eventuality, the producers to bring their pictures into line with the public's requirements in the matter of art.

The supporters of the restrictive theory, on the other hand, maintain that the state cannot disinterest itself about questions which have so important a moral significance behind them, since it is inconceivable that all the members constituting a «cinema public» in any picture hall can be on the same intellectual and spiritual level, so that not all of them can have those inhibitions and forms of self-control already referred to. Further it is advanced that it is incorrect to speak of incompetency when our censors are chosen from typical categories of persons in view of the tasks they carry out, and that there are other forms of censorship of a military and political character in which liberal ideas cannot be admitted. These are the chief reasons which militate in favour of or against the two contrasting systems.

The argument is a burning one, and right in the forefront of actual cinema problems. It cannot be easily resolved by means of some legislative measure since every law is only valid and effective within the borders of the nation promulgating it, unless and until the question is later revised from an international point of view.

The Rome Congress has therefore a matter of great importance to debate here, nor can the vital nature of it be diminished or disguised. The Congress, in dealing with the question, must be in a

position to illustrate all the vivid contrasts between the opposed points of view. It will have to decide if the state, or internationally speaking, an accord between several states, is to lay down general laws of control and censorship for those sections at least which, while leaving political considerations on one side, consider the moral defence of the individual and the public, and especially the intellectual and spiritual welfare of children. The decision to be made on the other side of the question is if it is not better to leave to private interests and the film producers themselves the task of carrying out this pre-release preventive censorship, as is done in America with the *Motion Picture Producers* which could be done on examination of a script of the scenario and a view of the rough takes without waiting for the final edition of the film and leaving it to the public to judge, approve or reject the films which it considers unsuitable morally, technically and artistically for its spirit sentiments, and conscience.

In view of the Congress, a work of international cinematographic legislation recently published in Italy by *Roberto Rosso Canevari* is of outstanding value. The work in question is entitled *Theoretical-Practical Treatise on Cinema Law*, and is published by the *S. A. Cooperativa Poligrafica*, Milan, 1933. It is in three volumes, and contains a wealth of notes, criticisms and bibliographical reports and items. It examines, perhaps for the first time in the history of the world all the various sections and infinite aspects of cinema legislation throughout the world, both in the matter of censorship authors' rights, transport, customs, labour, etc., and also the artistic side of the matter.

The work is a valuable contribution which Rossi Canevari has given to a magnificent instrument of culture and education such as the motion picture. His work proves once again that the cinema, once considered as something not worthy of serious attention, something like an amusement for children, has gained its full rights to recognition in life and in legislation.

In the work in question unexpected aspects of the question appear as regards amateur cinematographers, and their work for the screen. These aspects deserve to be taken seriously into consideration by the various legislations and should no longer be considered in the primitive manner of the past. New mechanical means are continually modifying principles which appear static and show again that the dynamism of the film has its repercussions in the legislative sphere.

THE CLASSIFICATION OF EDUCATIONAL FILMS FOR AN INTERNATIONAL CATALOGUE

BY

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An international catalogue of educational films which should result from the collaboration of all national bureaux entrusted with the task of judging the value of films as a means education constitutes an urgent necessity. Even if some of the pictures exhibit national tendencies, it is always possible to find material useful for a general work of education and instruction beyond the frontiers of the country of origin. This would even be justified if the subject matter were relative and limited to the phases of activity of the particular country. There is also the question of customs duties which impede greatly the exchange of films between one country and another. The ratification of the Geneva convention, promoted by the I. I. E. C., will render the exchange of films much easier than it is today.

Up till now, anyone finding himself obliged to make a choice for given reasons of the educational films listed in the existing catalogues has found it impossible, or almost so, to carry on his work, because the catalogues contained nothing about the objects of the films listed or about the systems of classification; nor was it possible to learn for what ages and scholastic grades the films would prove useful. What was worse, such indications as were given were often erroneous as regards the scientific classification of the pictures.

It seems obvious enough that the inquirer ought to be able to learn if the films he is

considering were made for purposes of teaching, propaganda, recreation, etc. If the films contain points on education, didactics, art, etc., all indications useful to the educationist ought to be listed in the catalogue.

It should also be clearly indicated in all catalogues for what ages and scholastic grades the films are intended, or if they may be considered good for all ages and grades and can be used in more than one class. For example, a film dealing with coffee plantations etc., may be useful at one and the same time for instruction in geography, botany and technical commerce.

This mass of information is necessary for the teacher unless we want to have him complain that after having requested and secured some twenty or thirty pictures, he discovers that only one or two of them are any good for the purposes of the teaching he has in mind, and that the others are practically useless to him, and that he could have well done without them, thus saving time and money for himself and the distributors.

A big film catalogue, if it is to have real international value, must be based on a system which does not rest solely on the language of the country of its origin, but offers its information in a manner to be universally comprehensible. This will be possible if we choose an international language based on numbers and figures which can be read with the use of a key. Another advantage of such a system would be the saving of space and

time. National languages should be used solely for the explanations of the contents and titles of the films. The proposal which follows is based upon a classification which deals solely with educational films in the strictest sense of the term, films examined and recommended by the second European conference of the educational film held at the Hague. The classification has been amplified with the help of Dr Walter Günther, director of *Film-und-Bildwart* of Berlin.

Classification and Definition of Films. The classification in question is the result of an experiment carried out recently in the cinema world on practical lines so that to explain the system to non-experts is certainly less easy than to carry it out. In any case, the concept remains unchanged that: *the classification must supply the person anxious to organize film projections for educational artistic and teaching purposes the necessary information to allow him to find as quickly as possible and with the greatest possible exactitude the pictures best suited to his purpose.*

The definition used should be as brief and simple as possible. Lengthy logical descriptions and sub-divisions must be abandoned because, as a matter of fact, they are of little use and only make the catalogue clumsy and complicated. Sub-divisions of single groups should be reduced to the strictest limits possible. Only when the number of pictures existing in a given section seems excessive, the I. I. E. C. could communicate fresh sub-divisions.

It is certainly impossible to contemplate publishing titles and information in one single volume. Two different volumes are required, one of which would contain the titles, while the other would carry all the information obtainable about the films listed. The first volume would be edited in various languages, while the second, which might be called the *classification volume* should be arranged on a cipher system as suggested.

The first volume would register the films of every nation, divided according to subject matter; the second the films of every nation

registered according to a numeration system. A glance at the first volume would show the titles.

Titles Volume. Films ought to be indicated by (1) a number; (2) by an indication of the format or formats in which they are available; (3) by an indication of the year in which they were produced.

The division by groups ought to be made according to the various subject matters, since in the majority of instances, if we are looking for a film, we look for one that has a certain content and belongs to a given type or category.

The following system of indications may usefully be observed:

Order of Countries. — The nations must follow in international rank. If abbreviations are required to indicate countries, the international initials used for automobile registration marks should be followed.

Subject matters:

- (1) Mathematics and Astronomy;
- (2) Physics and Meteorology;
- (3) Chemistry and Mineralogy;
- (4) Geology;
- (5) Botany (strict and biological);
- (6) Zoology, including anthropology and animal biology;
- (7) Geography inc. political geography;
- (8) Ethnography (popular traditions customs, etc.);
- (9) Medicine inc. veterinary science and pharmacology;
- (10) Agriculture including cultivation of plants, cattle-raising, cheese-making;
- (11) Forestal Economy, including hunting, fishing;
- (12) Arts and Crafts and small trades, technique, great industries, mineralogy, technology, metallurgy, examination of raw materials, rationalized work, history of industries;
- (13) Traffic (means of communications);
- (14) Political Economy (production, consumption, commerce, fairs, exhibitions, etc.);
- (15) Public Instruction, teaching and education (schools, curricula, etc.);
- (16) Applied Sociology (Hygiene, public

health, dwellings, social providence, relief and first institutions, prevention of accidents, life-saving, police, etc.);

(17) Sport (physical culture, the dance, etc.);

(18) Army and Navy;

(19) History;

(20) Fables, anecdotes, drama;

(21) Miscellaneous.

From the examination of a large number of films, it can be observed that the classification suggested would perfectly well answer the purpose aimed at. Title and subject matter sufficiently denote the film and its content, without having recourse to further sub-divisions. If a film fits into several categories, it must be included in all of them. If its importance for a certain subject matter is not very great, it can be listed in parenthesis. In order to economize space, we could arrange that a film which belongs under several headings is indicated in the first instance in full, with title, description, etc., and in the following citations with just its number.

Number in Catalogue. — Number of Classification Volume :

Size : n 35 mm. normal format
k 16 mm. Kodak
p 17,5 mm. Pathé.

The other formats have a lesser importance for educational films. They can be indicated with letters, with the exception of those initials used for other indications. For example, the Baby Pathé size (9,5 mm) ought to be indicated with a "y" and not with a "b".

Title of Films and Year of Production. — For the title of the film, it is well to use that portion of the title which best characterizes the contents of the picture. Thus, for a picture bearing a title such as *Great Metallurgical Industries, Mines and Blast Furnaces*, the indication should read : *Mines Metallurgy and Blast Furnaces ; Great Metal Industries*. Single parts of a film which can be shown independently should be registered apart, whether they are hired or produced. If it is not clear that they constitute a whole, the fact can be remarked in a parenthesis on the

right of the annotation. If a film belongs to several departments and fields of study, we can place, after the title, the corresponding numbers of the other sub-divisions, divided by commas.

The year of the film's production should follow the end of the title (and after the reference numbers) and after a colon, repeating only the last two figures in the date of the year. For example, Inoculation 10,29 means that the film (registered in the botanical section) belongs to section 10, agriculture, and was made in the year 1929.

The volume of titles should also contain indications for the classification of the films, for eventual special annotations and references.

Classification Volume. This volume ought to contain the indications

necessary for choosing a film for its didactic peculiarities with the indications in figures joined in seven groups. Films should be divided according to countries, and registered progressively with numbers. The volume should contain the groups of films in the following order : (I) number in the numeration system, (II) intellectual level or instructional level of spectators ; (III) objects of films ; (IV) type of picture (how made) ; (V) length ; (VI) names of producers, directors, operators, etc. ; (VII) other remarks.

I. *Numeration.* — Each national catalogue should begin with N^o. 1. The supplements will assist in completing the preceding number. The number must in all cases remain attached to the film, which will continue to be indicated by its number and the abbreviations of the country where it was produced.

II. —

(1) Students from 7 to 9 years ;

(2) » » 10 » 12 »

(3) » » 13 » 15 »

(4) Upper classes of elementary schools ;

(5) Normal and trade schools ;

(6) Courses for young persons for 4, 5 and 6 persons of from 16 to 18 ;

(7) Universities ;

(8) Adults for 7 and 8 persons, over 18.

(3), 6 would mean that a recreational film had educational tendencies and so on.

Supplementary Indications :

- (a) male ;
- (b) female ;
- (c) gymnasium ;
- (d) government ;
- (e) commercial ;
- (f) normal ;
- (g) technical ;
- (h) agricultural ;
- (i) pedagogic ;
- (k) artistic ;
- (m) social ;
- (n) school of general character ;
- (p) vocational guidance ;
- (q) rural ;
- (r) urban.

Other supplementary indications :

— number underlined (to be printed in heavy characters) — useful only for the grade indicated.

! after the number, means film should only be shown by an expert or technician.

!! means film should be projected separately to the two sexes.

-! means film prohibited for young people.

III. Objects of Film :

- (1) researches ;
- (2) teaching ;
- (3) education ;
- (4) instruction ;
- (5) art impressions ;
- (6) recreational ;
- (7) propaganda.

Additional Information :

with list of titles ;

* text illustrated ;

* * with comments ;

: : with slides.

A film can more or less well answer a determined purpose. It will be possible to have one or more research (1,2) films which could equally be used as teaching pictures.

IV. Type of Film (technically) :

- (1) Documentation of nature ;
- (2) Taken in scenes ;
- (3) Microscopic picture ;
- (4) X-Ray picture ;
- (5) Trick film.

Supplementary indications :

- (a) slow motion ;
- (b) accelerated motion ;
- (c) colour film ;
- (d) sound film ;
- (e) stereoscopic film ;
- (f) trick film ;
- (g) animated cartoon ;
- (h) silhouette ;
- (i) models ;
- (k) synchronized film.

If the letters " a " or " b " are not present, the film is a normal speed picture (silent films with 16 to 18 images a second ; sound films with 24 photograms per second). If, in the case of sound films, the " k " is lacking after the letter " d ", this indicates that photographs and sound were registered together. For mixed films, we can place after the indication of how the picture was made the length preceded by a colon. For example, : /1,5 ag : 46 / = natural science film with 46 metres of slow motion trick film work.

V. Length :

- (a) metres of animated cartoon ;
- (b) metres of stills ;
- (c) metres of talking film ;
- (d) metres of musical film ;
- (e) metres of titles ;
- (f) total meterage (length) ;
- (g) length of reel.

The figures indicating the length should be placed before the sign letters followed by a comma. If the indication of the length is missing, a zero is added to the comma. The letter indicating the format follows the length letter already indicated. If the same film is

available in normal and reduced size, the indication of the format should follow the normal length. The length of reduced size films should be indicated only after the normal length. For example, 210a, 30e, 250fn, 96fk, means: the film is composed of 210 metres of pictures and of 30 metres of titles, so that the normal length is 240 metres, while the sub-standard edition is 96 metres long.

VI. *Collaborators in Production of Film and Censorship Bureaux:*

- (a) Author;
- (b) Producer;
- (c) Seller;
- (d) Renter and Distributor;
- (e) Firm making;
- (f) Censorship Bureau where film examined;

? Unknown person or firm;

O not rented and not sold (should follow the letters c and d).

The collaborators or persons helping to duce the film and the censorship bureaux should be indicated in alphabetical order with their names, in the classification volume, and following the respective number. The addresses of seller and distributor should be included. Since many films are the result of a spiritual co-authorship, more than one author's name may be appended if they have had any essential part in the material production of the picture, as might happen, for instance, in the case of teaching films made by a specialist and a pedagogue.

VII. *Other Indications.* — Such other possible indications might consist of the number and length of the parts of the film. For example, a 212, 257, 302 would mean that this was a film in three parts respectively long 212, 257 and 302 metres. If there are no parts to be noted, the numeration used for other groups should be followed. The same for other possible indications that might be added. If such indications have more importance for the country in which the film was made, it will be as well that such indications references be placed in the volume of titles.

Research Films. — These in general are documentary films on nature and natural phenomena made with the purpose of acquiring new knowledge through a scientific utilization of the motion picture.

Teaching Films. — These should have a precise, objective content, utilizable for ordinary teaching and of a nature to be included both on account of their form and length in scholastic lessons;

Educational Films. — These have as their object the idea of arousing and strengthening the sentiments and the will necessary for the development and progress of man, and should be kept within the form and limits marked out as necessary for classes;

Instructional Film. — These are films which, as contrasted with teaching films, are intended for instruction of specialized groups and not heterogeneous assemblies of spectators. They do not require any special preparations and offer in a pleasant form, an opportunity for acquiring certain forms of knowledge which would not otherwise be gained. In view of their special characteristics, they cannot be considered as being connected strictly with any special tendency;

Art Films. — Only pictures calculated to give the spectators an artistic perception of the things shown are to be included in this category;

Recreational Films. — Amusement pictures which have no particular educational or instructive purpose;

Propaganda Films. — These pictures are intended to draw the attention of the spectators to determined manifestations, institutions and forms of commercial activity outside the ordinary orbit of education and instruction.

WITH REGARD TO THE MANNER OF MAKING THE FILMS:

Pictures taken with a *mise-en-scène*. These include scenes which have been specially studied and prepared beforehand, and which depend on special details inserted by the artistic director. They are therefore partly artificial, and not ordinary.

Nature documentation Films. — Pictures in which the natural surroundings are not altered or modified by the artistic concepts of the director ;

Trick Films. — Films made with the use of appliances or models or other objects which are introduced and removed closer or farther off so as to produce effects outside ordinary natural effects ;

LENGTH (meterage) ;

Length of animated projection. — Part of the film in which the movement forms an essential element for the object represented, either because it is desired to give the effective demonstration of movement, or because it is intended to illustrate some fact or phenomenon by means of movement ;

Length of Fixed Projection. — Part of film which has no movement or only non-essential movements to allow the understanding of the object being shown, so that the object in question can be, if necessary, represented by a fixed projection ;

Length of Spoken part of Film. — Part of the sound film containing sound track for speech or natural sounds.

Musical Length. — Length of film given

over to musical accompaniment synchronized with the photos ;

Circular Film. — "Short" in which the two parts — beginning and end — are joined so that it is possible to repeat the picture at will for as long as is desired ;

COLLABORATORS AND CO-AUTHORS :

(a) *Author.* — The person who accomplished the essential spiritual work for the creation of the picture should be given as the author. Generally it is the writer of the scenario.

Formation of International Catalogue. *Volume of Titles-Use.* (A) Explanations on system followed in catalogue ;

(a) Explanations of the figures and signs used for the various groups in the catalogue ;

(b) List of examples for explaining the possibilities of classification referred to under the letter "b" ;

c) list of abbreviations contained in the volume of the classifications.

(B) *The list of titles*, should be arranged by producing countries, divided for each country according to the category to which the pictures belong. The list should contain the sign number of the film, its format, its full title and the year of production.

Example : (taken from a Swiss list).

N.	SIZE	TITLE AND YEAR OF PRODUCTION
5. <i>Botanic :</i>		
4	n, k	Division of cells : 31.
8	n, k	Germination of pollen : 33.
3	n, k	Inoculation, 10 : 29.
6. <i>Zoology :</i>		
1	n, k	Seagull (Bird life) : 30.
2	n	Seagull (commented edition) : 30.
5	n, k	Heartbeats : 31.
7. <i>Geography :</i>		
9	k	Irrigation and Land Cultivation in Egypt : 33.
11. <i>Agriculture :</i>		
7	k	How the Peasant works and sows the land : 33.
12. <i>Arts and Crafts (Technique and Industry) :</i>		
6	k	How to make a table : 32.

Classification Volume. — As we have said, only the titles and the indications of the various groups in the different languages are indexed here, the rest being expressed in numbers, ciphers, letters or signs, the key or which will be found in the volume of the titles.

Film Collaborators and co-authors. — Author, producer, seller, distributor, director — all in alphabetical order. Each name must be indicated with a proper number and with the specification of the kind of collaboration given.

Examples : (1) Buhler, E Zurich, a ; (2) Hess, Prof Dr W. R., Zurich, a ; (3) Imhof, Dr G., Basle, abe ; (4) Noll, Dr H., Basle, a ; (5) Lehrfilmstelle des Erziehungsdepartements, Münsterplatz 19, Basle, bde ; (6) Schwarzenbach, Dr F., Wädenswil, a ;

(7) SAFU, Schweizerische Arbeitsgemeinschaft für Unterrichtskinetographie, Sonnegstr. 5, Zurich, 4 bode ; (8) S. S. V. K. Schweizer Schul und Volksskino, Erlachstrasse 21, Berne, bcd ; (9) Tüpke, H., Bratislau, a.

Film Censorship Bureaux. — These should be indicated in alphabetic order of their addresses with a number in parenthesis.

Example : Basle Schweizerische Lehrfilmkammer, Münsterplatz 19 ; (2) Berlin, Filmprüfstelle. ;

Classification of Films. — It should contain the films indicated in the volume of titles : (I) with numeration number ; (II) grade of culture of spectators and their age ; (III) objects of films ; (IV) type of picture (technically), (V) length ; (VI) collaborators ; (VII) other indications.

Examples : (taken from a Swiss catalogue).

I	II	III	IV	V	VI	VII
1	3,6	2*::19	1,1a:10	285a,25e,310fn,125fk	a4,bc7,d5n:7k, (1) (2) (3)	4
2	5,8!	(2),4*::19	1,1a:20	670a,30e,700fn	a4,bcd7, (1)	
3	3r	2*	1	94a,3b,3c,100fn,40fk	a6,bc7,d5n:7k, (1) (2) (3)	
4	3,4,8	2*	5bg	38a,2e,40fn,16fk	a6,bc7,d5n:7k, (1) (2) (3)	
5	3,4,7	2	5ag	o, 2fn, o,8fk	a2,bc7,d0, (1) (2) (3)	3,6
6	1	2*	1 (2)	153a,16e,168fk	a1,bcd7, (1) (2) (3)	
7	1	2	1	56a,4e,60fk	a3,b5,cd7, (1)	
8	1,4,7	2*	3b	100a,11e,111fk,	a6,bcd7, (1) (2) (3)	
9	3,4,6,8	2*	1	104a5,e,109fk	ab9,cde7, (1)	

The catalogue, in relation to the volume of titles, should be read as follows : *Film No 1* (Seagull) is intended for pupils of from 13 to 15 years, and may be projected during shows for young people (II,6). It is a teaching film (III,2) and illustrative comments are available (III) as well as 19 photographs (III, : 19). We have a documentary picture of nature (IV,1) with 10 metres slow motion running (IV, 1a : 10). It is composed of 285 metres of animated projection, 25 metres of titles, and totals altogether 310 metres

as normal, and 125 metres as sub-standard size film. Author is Dr H. Noll, Basle ; producer and seller the SAFU of Zurich ; Renting of normal size edition belongs to the section of the Educational Film of the Education Dept of Basle. Renting of sub-standard edition by SAFU of Berlin. The film has been submitted to the Swiss Chamber of Educational Film Censorship Bureau in Basle and to the Berlin censorship office.

Examples may be given for the other films by means of letters, and signs. *Film No 2*

the Seagull is for projections outside of schools intended for young people and the instruction of adults. It belongs to the category of instructive films (III,4) but has a more educational than recreative character (III,2), and therefore should be shown and commented by an expert, someone acquainted with birds. (II, 1). It is double the size of a ordinary school edition No 1, and is available only in normal size. (V, 700fn) Its projection takes $700 : 20 = 35$ minutes (I), and to this should be added the projection of the 19 photographs; the text for illustration is available. Moreover, further photographs can be had (VII,4). Film has been submitted to the censorship in Switzerland only as an educational picture (VI, (I)).

Film No 3 is intended for urban schools and children of from 13 to 15 (II, 3r). *Film No 4* on the division of cells is a trick picture with great acceleration (5bg, IV) it lasts only two minutes. *Film No 5* on heart-beats should be made in so simple a way that it can be of use for teaching children of from 13 to 15, but it should be precise enough to find a place in high school teaching. The author is a university professor. (VI, a2). *Film No 6* "How to make a table" is a teaching film for children. It is taken from real life, but with some scenic alterations (IV, I (2) 9).

It is useful for language-teaching, and knowledge of things (VII, 3). Its titles consist of small phrases to be read by the scholars in chorus (VII, 6). It lasts $168 : 8 = 21$ minutes (2), and ought not to be all projected at one time but on several occasions. *Film No 7* "How the Peasant works and sows the Land" it not intended for agricultural schools, but for children. *Film No 8* is a micro-cinematographic picture for accelerated motion (IV, 3b). *Film No 9* "Irrigation and Cultivation of the Land in Egypt" is a version in sub-standard made by the SAFU (VI, e7), and is reduced from an ordinary size cultural picture.

Other formulae can be added to these

according to information supplied by the individual nations for the formation of an international catalogue. In these lists are also included the indications of the titles and the volume of classification. Since these lists are set out according to the numerical order of the films the indication of the subject matter should come first.

Examples :

4,7/213/n/ Yellowstone Park Geysers : 12/II (4); 6, 8 / III 2/IV 1/V 320a, 332b; 253e, 905fn/VI a ?, bcd58, e21/
16/214/n,k/ Dentistry : 26/II/2/III3/IV 2,5g/V 160a, 102e, 292fn, 117fk/VI a61, b75, c13, d44, e21/VII5/
(2), 3/215/k/ Liquefying Crystals : 22/II 4,7/III 2/IV 3 /Vo; 2,6fk/VI abcd37, dO/

Film No 213 which treats of geology and geography is less suitable for teaching than instruction and recreation, and is not of a scholastic character. It contains many stills (V332b) on landscapes, terraces, spent geysers etc., which have been added to complete the picture, and also some very long titles for a public unacquainted with the subject.

Film No 214 (The Care of Teeth) is an educational film for young people to illustrate for them the best ways of preserving their teeth. It is made up of arranged scenes and tricks. The titles are edited in verse so as to amuse the pupils. These titles are listed in the volume of titles (IV +). *Film No 215 Liquefacient Crystals* is a micro picture intended for scientific use (VI, 4, 7).

I have attempted with the foregoing explanation of the system to show that with the use of numbers, letters and signs that it is possible in a limited space to give the most necessary indications to allow a choice from the catalogue of a picture for any instructive purpose. A catalogue which fails to supply these particulars is, at any rate for educational purposes, almost valueless. It is hoped that the foregoing may be considered as a contribution to the question of compiling an international catalogue of educational films and may provide a base for a definite discussion of the problem.

(1) 20 metres of silent film = 1 minute.

(2) 8 metres reduced size film = 1 minute.

FOR THE CREATION OF AN INTERNATIONAL FILM ARCHIVE

By Dr. ADOLF NICHTENHAUSER of Vienna.

1. PRESENT STATE OF THE SCIENTIFIC FILM. — *Utility of the Scientific Film.* The use of the motion picture in science has various objects. As a didactic film, it is useful for teaching students. It is a means for fixing and documenting processes and objects of research. In a final analysis, it is a means of research since the technical means of the film allow us to reach scientific results obtainable in no other way.

On this present occasion we propose to limit our remarks to the teaching film and the scientific propaganda motion picture. The film ought to complete the traditional methods in all cases where such teaching promises to be more effective than ordinary teaching methods. The ideal would be a *cinema encyclopedia of our cognitions* in the limits in which they can be filmed in a more effective way than is possible through speech or writing, or experiments. We are, however, far from having arrived at this state of things.

Disorganization of the Scientific Film. The advantages offered by the motion picture in practical science have long been known, but the organization of the applications of the same are still defective. It is true that scientific films are produced in all civilized countries with more or less regularity and system, but the scientific motion picture, as applied at present, has two disadvantages. One refers to production. The production of films of this kind is rarely carried out with method and persistence, and depends too much on local conditions and on financial possibilities of a variable nature. Pictures produced in this fashion deal with special problems, but without any organic system. A motion picture dealing systematically with subjects in a vaster way would be hard to find. The second disadvantage lies in the *very imperfect methods of handling and distribution* of such films as do exist since in the majority of cases it is only possible for a relatively small number of people to have a chance of examining such pictures. Thus, French medical pictures are not shown in Austria, and German technical films do not arrive in America. Even Austrian national pictures remain unknown to many possible renters and purchasers.

Reasons for the Disorganization. The reason of this disorganization lies especially in the *lack of places where scientific films can be projected.* If we

want to introduce scientific films in laboratories, universities and technical schools and in institutes of popular culture, there must be a possibility of witnessing a projection. The use of normal (35 mm) film has so far impeded this. The institution of places for the projection of scientific pictures has been rendered impossible up to now by the complicated efforts of the police owing to the danger of fire and also by the high cost of motion picture material. Even in important European universities, one does not ordinarily find proper projection halls. Safety machines enclosed in cases have not been regularly employed for projecting scientific films. It is possible to hire a projector for a single show from time to time, but it is difficult to transfer a filmed academic lesson into a cinema hall.

In addition to these drawbacks, there is a *lack of a proper distributing system* for scientific pictures. When a public institution, a university for instance, produces a picture, there is a certain guarantee that the film will be available at least to other universities in the same country. But when a scientist or a private firm produces a film the latter will remain unknown to many interested persons in the country of origin, since there are no organizations for distribution available for the producers to appeal to.

In these conditions it is easy to understand the harm that comes from *customs duties* on films. Renters count in customs dues when fixing a price for a film, but in the distribution of scientific films, the matter is entirely different. When an institute hires a film from abroad, it must pay the customs dues, even if the picture is only shown once. If another institution in the same country wants to hire the picture, it has to pay the customs duty too. This is one of the reasons which makes the exchange of scientific pictures almost an impossibility, for the means at the disposal of universities and similar institutions are generally scarce and do not permit the payment of carriage and dues. In view of these facts, it is eminently desirable that the customs franchise proposed by the I. I. E. C. should become effective as soon as possible.

2. IMPORTANCE OF THE SUB-STANDARD FILM IN SCIENTIFIC PICTURES. — *Advantages of sub-standard.* With the coming of reduced size film, the position

of the scientific picture has been fundamentally changed. The projection of reduced size film is free from police regulations regarding the danger of fire. Reduced size pictures may be shown in any hall where there is electric current and the possibility of darkening the room. These conditions are practically available in all halls, laboratories and similar places which makes the projection of the film in teaching and practical science easy.

Organization of the Scientific film. The technique of the reduced size film therefore offers a basis for a systematic organization of the scientific picture on a wide ground. It is necessary that: —

(1) all superior schools (universities, polytechnics, academies of fine arts etc.) technical and trade schools research institutes, scientific societies popular universities, etc. should provide themselves with sub-standard size projectors. To begin with, it is not necessary for each single department of an institution to acquire a projector. It will suffice if in each school, clinic or institute there be an apparatus to carry from hall to hall as required. The purchase of such an apparatus does not mean a very heavy expense.

(2) The general adoption of reduced size apparatus may form the economic basis for a *systematic production* of scientific films. As things stand today, in view of the lack of any renting organization, it is not possible to amortize in one way or other the production of scientific pictures, and still less to earn a profit. This is the reason why the production of such films remains sporadic. When all the consumers are equipped with sub-standard projectors, the production of scientific pictures will be able to be established with a vast body of customers and exhibitors, and will so become rationalized.

(3) It is true that this will only be possible if a regular renting system is evolved with the purpose of spreading the scientific picture in all countries. A great part of the existing material is in private hands or belongs to universities state archives, etc. The renting organizations could be either state or private, but excessive dispersion should be avoided. At the same time, we should consider that universities or industrial firms are not always disposed to loan their films. Therefore, it may become necessary to create *intermediary centres* with the task of listing all films presenting interest and arranging the loan between proprietor and exhibitor. As is known, the I. I. E. C. proposes to publish an international catalogue of the instructional film. With regard to this matter, it would be advisable to create an institute to look after the circulation of instructive films.

(4) In order that such efforts be crowned with success, it would be advisable to *abolish as soon as possible the obstacles deriving from the imposition of customs dues on scientific films, quotas and other difficulties to diffusion of the material among the public.*

Reduced Size Film in the Schools. Much has been done in the school since the introduction of sub-standard film. In those countries where the sub-standard film has been introduced into the schools, an important development of scholastic cinematography has been noticed. In some countries, such efforts have progressed considerably especially in the United States. As far back as 1926, Kodak began with the foundation of a great repository of scholastic pictures, the "Eastman Classroom Films". The collection contains now about 200 pictures (16 mm) treating of all branches of science. In Europe too, some scholastic film repositories have come into being. They are generally founded and run by didactic authorities.

So far in Europe, the reduced size film has developed less in the department of science than in the school. America is much more ahead here too. For some time now there has existed in America an organization which meets our requirements in many ways "The Kodak Medical Film Library".

3. AN ARCHIVE OF MEDICAL FILMS. — *The Film and Medicine.* The employment of the film has a particular importance in the field of medicine since the objects or processes studied can be rendered visible. This explains why the use of the film is more widespread in medicine than in any other branch of science. It has a very important part in medical teaching. Technical film processes such as the slow motion camera, the accelerated running off of film, trick photography, close-ups micro-cinematography render it possible to represent and fix processes which are inaccessible to ordinary observation. We can obtain with the film original pictures of things that cannot be seen otherwise. We can take clinical pictures of diseases, the study of which is made difficult by their rarity or the fleeting nature of the phenomena. While the student in the operating theatre can only obtain a general idea of the operation, the surgical film slows a detailed study of it. Moreover, filmed operations are executed by expert hands which allows the technique of celebrated foreign surgeons to be studied.

The Kodak Medical Library. Notwithstanding this, even in the teaching courses of many European universities, the film is used without proper system

and only in individual cases. It is true that there are more medical films than films in other branches of science, but the difficulties and especially the shortage of halls for projection is the same here as in other fields. In the United States, the classic country of the cinema, the conditions are different. Here the film is used in medical science extensively. This is the reason why the Kodak film decided some years ago to found an archive of medical films in 16mm size.

The catalogue which we have before us was published, it would appear, in 1932. It can be obtained at the Medical Dept. Kodak House Kingsway, London, W. C. 2 and includes a list of 133 films covering a wide scientific field. The following branches of medicine are catered for: anatomy, normal physiology and pathology; medical biology, clinical cases, neurology, surgery orthopaedics, obstetrics, and gynaecology, diseases of the throat nose and ear, dentistry, X-ray treatment, first aid, films for lectures popularizing instructions for nurses, films on embryology, hygiene and veterinary science.

This summary list will suffice to illustrate the wealth of the collection but a study of the detailed catalogue shows how it has been possible to collect a representation of the most various medical and biological subjects.

What gives the *Medical Film Library* a special value is its completeness from the didactic point of view. For example in the surgical pictures, the particular phases of the operation are not only explained by means of titles, but the understanding is assisted with schematic drawings which illustrate particulars not easily perceptible through a simple observation of the field of the operation.

A splendid example is the picture *Diagnosis and Treatment of Infections of the Hand* by Allan B. Kanavel. Every student of medicine knows the anatomy of the hand and the pictures of the diseases which cause infection in it. The motion picture uses models which almost render the hand transparent and visible in all its anatomical particulars. By means of photographic tricks, the course of the various infections is rendered visible in the models. For the anatomical preparation generally used the anatomical process is substituted. In this way, the invisible is made visible and therefore clearly and easily comprehensible to the mind. A particular virtue of this film is that the models are copied closely from nature which makes it possible to use dissolving pictures to pass from the artificial anatomical process to the real clinical picture. The cleverness of the tricks are evident when it is a case of illustrating complicated processes. There are

few pages of medicine so deeply studied as the physiology of the heart. Yet how difficult it is to represent with clarity and precision the cardiac movements. A motion picture like *Mechanism of the Normal Heart* shows us by means of animated drawings a clear and comprehensible picture of this important and complicated process, rendering mental reconstruction superfluous.

The Medical Library is an international repository; American, German and Austrian films are represented. To mention a few, we may list the names of Sir Thomas Walker (London), De Lee (Chicago), Joseph (Berlin) Böhler (Vienna). These names of themselves demonstrate that the *Medical Library* does not confine itself to dealing with fundamental medical subjects but illustrates the special methods of various scientists.

Despite the wealth of the *Medical Library* collection, the scheme is still in its beginnings if we consider the vastness of the medical field. Thus we can see why certain branches are barely or not at all touched. Such branches, for instance, are the upbringing of children, dermatology and pharmacology.

In the case of dermatology and children's diseases, we shall probably have to wait for the coloured film. The diagnosis of internal diseases is largely a question of hearing, and therefore we shall have to have recourse to the reduced size sound film. It would be a good idea to possess some pharmacological motion pictures which would eliminate animal experiments in academic lessons in a number of cases. In the same way for representations of psychical illnesses and medical jurisprudence pictures.

The Medical Library is a circulating archive but the pictures are also for sale. As far as we know; the *Medical Library* only exists in the United States and England. In other countries, only isolated medical pictures are in circulation. It would be an excellent plan if the *Medical Library* were introduced into other European countries which have so far neglected the medical picture for teaching purpose. We do not believe in the excuse that the means are not everywhere available to do this owing to the economic crisis, because several clinics could club together to purchase a sub-standard projector. By dividing the renting charges, each institute or clinic would pay a small fee. It may be supposed that students will have no objection to an arrangement of this kind.

Practical Importance of the Medical Library. If we urge the spread of the *Medical Library*, it is for the following reason: we consider the continued

use of the film in medicine desirable and useful. As far as we know, the *Medical Library* is the only international circulating film archive within the reach of those interested in the subjects dealt with therein. The Kodak firm has representatives all over the world and can therefore distribute the films to customers.

Development of the Medical Film. Naturally apart from the *Medical Library* there is a large number of medical films, but the majority of them never reach their public because no one looks after their proper distribution. Many of these pictures are precious and useful, and their owners might well cede certain rights in them to the Medical Library to look after a proper distribution of them. The task of organizing the distribution etc. of medical films really belongs to the administrative departments of medical and scientific institutions.

Finally, we should not forget that the reduced size film makes it possible for all students and ex-

perts of medicine to make films themselves. The Kodak firm points out that the production of medical films is not only the business of film experts, but belongs in the first place to the medical profession. The American doctors have for some time taken advantage of this opportunity. When such films are made and have more than private interest, it would be well to see to their inclusion in the catalogue of the *Medical Library* for the benefit of others.

We have dealt at length with this *Medical Library* because it is the *first international collection of special films available for persons interested throughout the world*. It demonstrates the importance of the reduced size film, and renders clear the necessity of increasing the production and distribution of the scientific film by using the sub-standard size. It should merit general interest, and incite people to renewed efforts towards organization in the field of the scientific film.

THE CINEMA AND PEACE

(SUMMARY REPORT OF THE CINEMA AND BROADCASTING COMMISSION
OF THE INTERNATIONAL WOMEN'S COUNCIL)

BY

Laura Dreyfus-Barney.

(PRESIDENT OF THE CINEMA AND RADIO COMMISSION OF THE WOMEN'S INTERNATIONAL COUNCIL).

THE International Women's Council which attaches the greatest importance to the development of a wider understanding and better feeling between peoples has pleasure in presenting this report — necessarily limited in scope — on the role of the cinema in this matter.

The Cinema and Union among Peoples. After the giant steps taken by science during the last few years, it would seem that frontiers no longer exist. The telegraph, the telephone, the cinema, wireless and television are joining up, often in a direct and immediate way, the most various types of humanity living in parts of the world far distant from one another. Peoples who had no knowledge of one another in the past can know each other today and realize the truism that on general lines humanity is much the same the world over. If the ideas and the customs of peoples differ, this is a lesson to be learnt from this too. Thus, different as may be the temples of Kyoto, Benares and Karnac, the cathedrals of Westminster and St Peter's in Rome, or the Mosque of Omar at Jerusalem: all are places for prayer and worship. Shall we recall the film *Mélodie du Monde* where all humanity exchanged sympathy in the most significant acts of life?

What does the cinema do to aid the better understanding of the peoples? What more can it do? The answer is, much, and its

powers which are among the greatest possessed by civilized man today impose correspondingly important duties on it.

Thanks to the motion picture, the knowledge of other peoples, formerly acquired through books and travel, is today within the reach of everyone as a living thing. Distance is abolished. We can travel round the world seated in our armchair, or rather we can watch the world pass before our eyes. The extreme points of all civilizations have been seized by the camera, and the success enjoyed by the big documentary films is a witness to the interest which everyone takes in what is happening in other parts of the globe.

In order that the motion picture may be of assistance in promoting a better understanding among peoples, it must be treated in a certain fashion and on the treatment depends its peace-promoting effect. Now, after 30 years of existence, the motion picture has become faced with a difficulty in interpreting peoples to one another by the developments of the talking film. The image, this universal language, has lost something of its power. From being purely international, the film tended to become national again when the word began to assume an equal place with the image. The drawback was so widely felt that various processes and plans were evolved to abolish the watertight compartments of different languages.

As one of the recommendations of the conference held in Rome in October 1931 by

the Women's International Council put it: "it is necessary to exclude from programmes all films which are capable of arousing or developing sentiments of hate or hostility. We must avoid with care all errors or erroneous interpretations of another nation's customs or ideas. We must guard against — as is affirmed in the censorship regulations of many countries — films tending to diminish the prestige of a state or to disturb relations with a foreign power, or films likely to offend national susceptibilities. In this way we should avoid regrettable incidents like some of those which have happened during the last few years, as for instance at Shanghai where a film showed incidents offensive to the Chinese, a fact which was pointed out to us by Mlle San Kao, professor at the University of Nankin and also by our cinema correspondent in China.

Another danger arises from the issue of different versions of the same picture according to the country where it is proposed to show it. Thus a character in *Shanghai Express* was presented differently in Central Europe and in France, and at Bucharest provoked the intervention of the legation of the country which considered itself placed in a false position by the film. On the other hand, the tact with which a film is treated allows a delicate situation to be handled without arousing anyone's susceptibilities. The Czech film *Forgotten Patriots* (national movement of 1840-50) mentioned by the *Film Kurier* of Berlin is a case in point.

To sum the matter up, we must do for the film what is done for text-books, expurgate them, compile them with every care, and supply them with judicious comments.

As a result of some experiments made in order to learn the effects on children of certain pictures showing the customs and manners of different peoples, it became clear that these effects varied according to the fashion in which the subject was treated. In showing films which tend towards creating good feelings between peoples one may develop and create a spirit of solidarity, while on the other hand, there is a real

danger in presenting pictures which are tinged with a definite prejudice.

Subjects with a wide human appeal, and those illustrating different forms of activity and work and questions which interest all men irrespective of their language and country, films revealing the inner life of human beings will contribute something towards creating a feeling of fraternity if properly handled. There should be no doctrinaire appeal, for this is boring, and such pictures should be neither too long or too short. The *Tragedy of the Mines* is a model along these lines and we shall be glad to see Pabst's new disarmament film. *Cavalcade* has also gained the approval of some people.

It is evident that the necessity of producing pictures of this type has been felt, since many societies have offered prizes for the best scenarios with a fraternity appeal.

Not only do these big pictures exercise a salutary influence from the point of view of a better and fuller understanding between men, but they also provide a picture of current events which is admirably chosen as a rule.

News-reels showing on the screen politicians of different nations gathered together to discuss important subjects and the words of wisdom and hope which accompany such films produce a profound impression on the masses, and favour the idea of understanding between peoples. The same thing is true of those films which show scientists and their discoveries rendering the vast frontierless domain of science accessible to all, also films which reproduce acts of generosity or heroism in the face of danger. Such pictures gather humnaity into one common family.

This type of news-reel acts better to the end proposed than pictures of the latest engines of destruction: tanks, super-dreadnoughts, etc., which appear too frequently on the screen.

The new three minutes film can illustrate for everyone the questions of the day. It is a vivid summary constructed with the aid of the animated cartoon, schematic drawings, graphs, arrows, etc., compelling the spectator's attention without ever tiring him

making him examine matters of a political, economic and scientific order illustrated with clarity and precision. *The Question of the Debts*, *Three Minutes Astronomy*, *The Pacific Question* are all shorts which will help to clarify intelligences, hearts and wills.

Films on the League of Nations illustrating its objects and work will find helpful assistance of a technical character at the Rome Cinema Institute, which is about to form a committee of eminent producers to give advice and proffer collaboration.

The following lines of Dr Emmanuel Horn seem to us to resume the entire question of the importance of the film in the matter of creating a better understanding between the peoples: "One cannot speak in too condemnatory terms of Chauvinism in this domain. We do not want watertight departments among the various types of film which ought rather to come together and adapt themselves to one another. These are very human things. The lofty and eternal sentiments which move every man tend towards uniting the peoples in one community. In the final analysis, the film is international".

War Films.

What has been the result produced by war films? What results have they brought about for furthering the idea of peace? Opinions differ. According to some people, such films have produced a satisfactory effect on adults. The recollection of horrors, the sad pictures and sufferings seen have naturally led to a desire that such things should not be repeated and in this way there is a gain for the idea of peace.

According to the views of other folk, their efficaciousness is practically null from the point of view of peace, and they are sometimes even capable of fanning the desire for revenge. The symposium organized by the *Revue du Cinéma* of Paris among a number of different French personalities (P. Morand, E. Borel, H. Barbusse, A. Cremieux, Dr. G. Dumas) supports these conclusions.

M. Jule Destrée, in *Le Soir* of Brussels, does not believe in the pacifist effect of such

pictures. For war films really to be effective, they would have to attain a degree of realism insupportable by the public. On the other hand, is it wise to show to certain natures the frightful realities of a duty which, we hope, they will not be called upon to fulfill?

The question is not decided then of the utility or otherwise of war films, and the way in which they are produced is all important. To obtain the desired effect, they must be made with exactness and correctness. Pictures like "No Man's Land", "The Wooden Cross", "All Quiet on the Western Front" "The Man I killed" made a great impression on the public.

What is the effect of war films on children?

Inquiries and symposia have been undertaken in several countries on this question, and the intelligent and careful work of the I. I. E. C. in this domain has helped to clear up the point.

From the symposium carried out in Italy, we see from the children's replies that they feel the horrors of war, the sentiments of heroism, faith, courage and self-abnegation. "Better live one day like a lion than one hundred years as a sheep" wrote a boy of 12.

On the other hand a teacher has told us that he saw his pupils becoming enthusiastic over the attacks of their countrymen against the enemy trenches.

A teacher of backward children has related that despite the fear of death, and the sufferings understood by many, numbers of the children have reacted in this fashion; "This is fine, people are fighting and — "It's splendid to watch men firing cannon; now we shall see which side is the stronger".

All pedagogues recognize the effect of nervous shock produced by such films on young persons.

Influence of the Cinema on Peoples of Different Races and Different Cultures.

Granting the different effects which the cinema can have on peoples of different races living in different latitudes, we must bring the greatest care to the choice of films exported. Many coun-

tries are quite well aware of the importance of this fact already.

We must make a collective effort to prevent the distribution of bad pictures which can have a prejudicial effect on natives. We should especially consider the mental characteristics of Oriental peoples and peoples of the Far East, who have lively imaginations and great sensibility.

A feeling of opposition to the emancipation of women has been provoked among Mussulmans by their seeing pictures coming from Europe and America. In India, the governing classes and Buddhist reformers have been led to organize a campaign in favour of a film censorship in order to safeguard the moral and religious traditions of the Hindus.

The evil effects on these races have been vigorously detailed by Professor Wang Ting Hsiang of Tien-Tsin, one of the most distinguished scholars of the old school. "To tell the truth, the list of bad habits and deplorable customs to be attributed to your cinema is a very long one. How is that you yourselves do not see that this shameful exhibition of the worst side of your cinema and European civilization is certainly not of a nature to create respect for you among our masses?"

The Reverend Father J. Harry COTTON returning from China, stated at a talk to the Women's Association of New York that the American cinema is exercising more influence on the people of the Far East than the missionaries' word.

In various Central and South American states, the government intervenes with the aid of the censorship in the fight against immoral pictures sent from Europe and the United States.

On the other hand, we are well aware how useful the cinema can be in these far off parts of the world, how it can aid in the spread of constructive and civilizing ideas. We cannot go into detail here in this matter which is full of promise for the future, but we should like to quote two instances related by our colleagues.

Mme Gallagher de Parkes, Honorary

President of the National Council of Women of Peru, in her interesting report on the Peruvian cinema, shows us how the film has been used with great effect to fight alcoholism among the Indians, while Mlle Suzanne Karpeles of the French Women's National Council and secretary of the Institute of Buddhist studies at Phom Penh has been able to follow this question of the influence of the motion picture very closely. Her correspondence is a precious and comforting document, and her personal experience can and ought to serve as the basis and an example of the film policy to be followed in these countries. She writes :

"I have made some films in order to render the lessons easy to understand for a public composed of naive peasants, besotted soldiers and fine and cultured bonzes. Grouping the films by categories, I have arrived at having sufficient material to supply six good projections of one hour each".

"18 August, 1932.

"Yesterday we inaugurated a new kind of amusement, and I can assure you that the films were appreciated as perhaps they have never been appreciated in France.

"The Milicians, their families and friends, and the preacher surrounded by a number of yellow sages, passed a delightful evening. There were about 600 of them bubbling over with delight, crying out and clapping their hands, while we explained to them the pictures *Paysages de France* and *A School of Agriculture*. When they saw the big cattle and the huge horses and the fields being worked like rice fields their enthusiasm knew no bounds. It was a surprise for them to see Frenchmen working the land just as they do.

"At the beginning of the projection, my secretary explained that it was thanks to the cinema section of the C. N. F. F. composed of women of lofty sentiments working for the good of humanity, that we were able to show them that evening and on several other occasions these fine pictures.

"23 August, 1932;

"The projections which we are offering

regularly to the Milicians and the Buddhist clergy in large numbers have shown us to what degree this kind of manifestation is a precious aid for the spreading of our influence and for a better understanding among peoples".

In order better to assist us in understanding the Far East, would it not be advisable to distribute pictures made in those countries? A recent article pointed out that during the last five or six years only five Asiatic pictures have been shown in the United States. (3 Japanese, one Chinese and one Indian).

To conclude, we may state all the reasons for hope which we are encouraged to have by the voluminous and interesting documentation gathered together by the I. I. E. C. of Rome as a result of the inquiry undertaken by it among peoples of the Near and Far East. There were more than 200 replies coming from persons qualified to speak and these replies allow us better to understand this important question of the influence of the motion picture on peoples of different races and cultures. The question has unfortunately been too much neglected up to now.

* * *

It has seemed right to the Cinema and Radio Commission of the Women's International Council that an effort should be

made by each of us within our own spheres and capacities to reach the object aimed at: the better employment of the motion picture in the cause of peace. Films which are dangerous for international understanding and good will should be notified as such, while on the contrary, pictures which favour a better understanding between nations should be welcomed. The difficulties encountered and successes obtained should be made known; the producers of good films should be encouraged, while those who produce pictures with an anti-international tendency calculated to stir up evil and revengeful feelings should be pointed out to the press.

We should like to submit to the Congress the motion adopted by our Cinema and Radio Commission on the occasion of the meeting held in Rome in October, 1932.

"The conference demands that films which are likely to arouse and develop feelings of hostility or hate between different races and peoples should be rigorously excluded from cinema programmes, that special encouragement should be given to producers in all countries who produce pictures bringing out national values into favorable relief, while at the same time not failing to illustrate the collective benefits that can come from international collaboration and the work undertaken by the League of Nations".

THE FILM IN INTERNATIONAL RELATIONS

BY

Eduard Golias,

VIENNA.

THE peculiar conditions by which the film industry is governed and the large capital sums which have to be sunk in any given production make it imperative to secure the most extensive market possible for each individual film. It is impossible, on purely commercial grounds, for the American industry to dispense with the European market, and America is equally important for European productions. Such being the case, film authors and producers are compelled to keep the peculiar features of the individual markets perpetually in mind, and to eliminate anything which appears in any way likely to destroy or even to restrict the market prospects of a particular film. For this purpose even the closest international sales organization is not sufficient; the film must also be conceived, both as to outward form and inner meaning, so as to give it a commercial sale value.

It would be too much to attempt, within the limits of a short report, to go into all the details of the highly organized film industry and the very large capital by which it is backed. Suffice it to say that, in view of both its manufacture and its subject-matter, the film is a very peculiar product, *at once* commercial and of the mind, whose market possibilities are determined in no uncertain fashion by the spiritual concepts, moral and social convictions and taste (as the most commonplace expression of aesthetic values) of the groups of consumers (cinema-goers) concerned.

It is these purely commercial considerations which determine the tone and scope of

each production and necessitate the elaboration of specific "formulas" aiming, for economic reasons, at a standardization of subject-matter and technical and ethical treatment. In this respect, the sound film has not made matters any easier for producers; on the contrary, it has greatly complicated their task.

The development of transport and of wireless broadcasting which has done so much to increase the possibilities of cultural relations between peoples and the building up of a system of world trade embracing constantly expanding markets, etc. have gone far to standardize general intellectual and spiritual conceptions in all countries.

Nevertheless, there exists as yet but little to bridge the lack of mutual understanding between the Occidental or European-American culture group and the Eastern-Asiatic groups. These great civilizations have for centuries been developing independently of each other, and have attained to a highly individualized culture in the intellectual, spiritual and social spheres. A single example will suffice in substantiation of this assertion, — Japan. In a few decades that island Empire of a purely Mongolian stamp has assimilated Occidental civilization, but without sacrificing anything of its own Asiatic-oriental and national civilization, which was evolved under conditions quite different from those prevailing in the West. To the Japanese, Occidental civilization has been more than a welcome and adeptly wielded weapon in the struggle to secure satisfactory

conditions of existence. It would therefore be a grave error to suppose that because outwardly Japanese life bears a certain imprint of Western civilization the Japanese people has already drawn closer to the West in the spiritual, intellectual and social aspects of culture. Even among the Western nations themselves, conditions are very similar, though the differences are not so deep-seated.

After this brief preliminary reference to the fundamentals of the subject, we may now pass to the question of how far the film can act as an intermediary in the international relations of peoples.

That the film is capable of performing such a function need not be demonstrated in detail. In spite of the sound film and the talking film, it is still a fact that the cinema's most effective means of expression is its pictorial side and the representation of time sequences or consecutive series of events. Visual effect is still paramount in the film's representational and expressive possibilities, whether it be in the purely documentary reproduction of facts and events or in the free and creative narrative treatment of an event; and though this effect may to some extent be heightened by the sound accompaniment, the latter can never replace or supplant it.

The film, which is merely an objective report of facts, will produce the effects to be expected of such a report. It would be a mistake, however, to suppose that a mere report of facts will suffice for the spiritual and intellectual comprehension of what has actually taken place. In many cases, it is only through exposition and interpretation that the event recorded by the film can be grasped in its proper setting and with its full intellectual and spiritual significance. When the film enlists the aid of methods drawn from dramatic art, and freely creates intellectual and spiritual themes, it is found to be much more deeply rooted in the intellectual and spiritual traditions of the civilization from which it springs and whose idioms it employs as symbols — and indeed must employ them if it is to be

“understood” and produce its effect upon the intellect and psyche. In this connection, we need only refer to the film “Nippon”, which reproduces Japanese drama. This film has only to be compared with any film drama of European or American origin in order to prove conclusively how essential are the differences in dramatic means of expression as determined by the various civilizations. The difference would be equally great if we were to transport a twentieth-century Greek into an ancient Greek theatre, the effects of which would be based upon essentially different psychical hypotheses, a quite different capacity for illusion, a different receptivity and accessibility to symbolic treatment. Every European who visits a Chinese theatre experiences the same inward helplessness and the same inability to understand, while, conversely, a great deal of what takes place in a European theatre remains incomprehensible to a Chinaman unfamiliar with things European.

We are nevertheless justified in maintaining that the film being perfectly capable of dispensing with the spoken word, is in a position to play a very important part as an intermediary in the international relations of peoples, and it is therefore not at all Utopian of those who, on purely humanitarian grounds or in the interests of peace, are striving to draw closer the bonds of international relationships, to wish to influence film production to that end; but, as we explained at the outset, these endeavours are counteracted by the commercial considerations and interests of the film industry.

The film as an instrument of propaganda for the mutual understanding of peoples and the service of peace.

Peoples are divided not by what they have in common, but by that in which their respective modes of life and fundamental conceptions are at variance. The strong wave of nationalism, which is spreading more especially over Europe and intensifying the national consciousness of the various peoples — and to such a point that we can actually discern tendencies to autarchy in

cultural life — seems to be driving the peoples apart. Understanding of foreign peoples however, presupposes knowledge of one's own. It will be for the people's leaders, in their farsightedness and wisdom, to see that, even while national characteristics and peculiarities are fully emphasised, it is realized that each national culture can only stand to gain by the exchange of cultural assets and indeed can scarcely ever develop without such exchange. The principle of autarchy, which in the long run is inapplicable to a State's economic life, is no less inapplicable to the ordering of its cultural resources.

It therefore behoves men of goodwill in all countries to join their efforts to secure the objective representation of the culture and civilization of their own peoples and to keep each other mutually informed. Flights of national enthusiasm lead all too easily to over-estimation of one's own and under-estimation of foreign culture and civilization, without its being realized that here too all judgments are relative — inevitably so — and that it is quite impossible to comprehend any culture apart from its topographical — geographical, historical and economic background.

Comprehension of one's own character and usages presupposes a high degree of self-criticism, feeling and objectivity; and among instruments of propaganda, visual representation is especially valuable. It has abundant powers of suggestion; it can dispense with the spoken word; but it is apt to lead to the mistaken belief that in the very nature of things the camera cannot lie. Yet anyone, familiar with the highly developed camera technique of the cinema will understand that a method of representation which can even represent the impossible and make it credible can very easily lead to a distortion of facts such as cannot always be detected without difficulty. That is the danger. To realize its full magnitude and withstand it will be one of the most vital duties of all who have at heart the pacification of the world through mutual understanding.

An ideal solution of this question, would

be international supervision of production with a view to objective representation in documentary films. Only thus will it be possible to open the way to reciprocal propaganda of a far-minded and objective kind.

Si vis pacem, para pacem! In accordance with this maxim those responsible for such film propaganda would have to muster sufficient courage to show that the fundamental causes leading to the conflicts of war are the instinct of self-preservation and the desire to obtain assured and adequate conditions of life. Such propaganda films must therefore not be confined to exhibiting a country and the men whom fate has placed in it in every aspect of their existence; it must also show the main springs of their economic life as developed and determined by history. That will require courage to depict the truth, the courage to ponder existing facts, the tension they engender in the life of the peoples and the consequences to which they may ultimately lead, and to give them cinematographic representation. It is significant that the population of Germany was approximately eight million in 1648, at the end of the Thirty Years' War, and approximately seventy million in 1914, — facts which explain the expansionist urge in the life of the German people, especially when their geographical situation is also taken into account. It is impossible to understand the various aspects of the life of Germany until this fact has been grasped.

If the susceptibilities of the peoples are not to be wounded or their passions aroused by a medium of propaganda as dangerous as the film, international agreements will be necessary. Whether and how far Europe is psychologically prepared for such a development, the present rapporteur cannot presume to decide. He can only refer to his proposal to set up an international committee, a kind of "Film League of Nations", whose primary duty it would be to supervise film production (as is already done with regard to the production of textbooks) and scrutinize it from the standpoint of the considerations set out above. It would also,

however, have to concern itself with the question whether and how far it is possible to conclude an international convention calculated to bring about an atmosphere of justice, impartiality and equity.

This committee would also have to be em-

powered to urge the departments of psychology in the various universities to enquire fully into the influence and effects of the cinematograph on peoples of different civilizations and to place their material at the committee's disposal for mature consideration.

SUMMARY REPORT FOR THE INTERNATIONAL TEACHING AND EDUCATIONAL FILM CONGRESS

THE EDUCATIONAL FILM IN THE LIFE OF THE PEOPLES

BY

Vittorio Viola.

The Film as a means towards the spiritual and moral elevation of the Working Classes.

THE pace of the life we live nowadays and the mechanization of the systems of work in all sections of production do not permit the worker any time for increasing his culture, while on the other hand, he is not able to find in any kind of labour that satisfaction which derives from doing work of a personal character. The film offers a way out of this situation, for it can offer us, in a relatively short space of time and without much expense a maximum of new impressions which can satisfy that romanticism which lies deep in the heart of every man. *These circumstances explain the popularity of the film with the working classes, and show the necessity of recognizing it as a fact of extraordinary importance in the life of the peoples.*

Unfortunately, this great influence of the motion picture on the masses was, to begin with, only recognized by persons who consider the motion picture from a purely commercial point of view. The important possibilities of its use for culture and education were neglected.

As far back as 1914, there were attempts

on the part of isolated Austrian associations and individuals to organize a campaign against pernicious films, but the means adopted in this fight were chiefly the production and exhibition of nature films.

It was only in 1920 that responsible educationists in Austria began to change their negative opinion on the recreational motion picture, and recognized that the film, strenuously opposed, first of all, as an educational aid, ought to be utilized unconditionally as an instrument for the education of adults.

In the course of little more than ten years, it was frequently possible to prove that a good film, carefully prepared, has great chances of delighting the working classes and justifies its existence on economic grounds.

The economic crisis has proved the great obstacle for the utilization of the motion picture for educational ends. People who believe in it, however, have faith in the programme they have set down for themselves, that is, to enter the field and boldly oppose good films to bad.

The bodies which devote themselves to the use of the motion picture in the education of the masses are the two big independent popular cultural institutes: the *Urania* of

Vienna and the Popular Culture Club of Vienna. These two organizations run instructional theatres in Vienna, and all the provincial organizations of the kind depend on them.

The Urania of Vienna issues the following communique on its activities :

The Urania Institute of Popular Education of Vienna was founded on April 16, 1897 through the efforts of *N. O. Gewerbeverein* (Arts and Crafts Association of Lower Austria). The first temporary edifice of the Urania was built in 1898 on the occasion of the Jubilee Exhibition in the Prater. Following performances and lectures with lantern slides, some films of an instructive character were projected for the first time, that is, barely three years after the invention of the moving picture. Old files of the Urania show that in one year the association already possessed a regular stock of films. The collection has been regularly increased and improved since then, so that at present the Urania has a film repository of about 450.000 instructive and didactic films with exclusive right to project. This film archive is without doubt the largest repository of instructive and didactic pictures in Europe.

Instructive pictures were regularly reproduced by the Urania during its first twenty years of existence. They were shown during the so called musical performances of the Urania, during scholastic lectures, and in programmes given under the title of "cinematograms of the Urania".

On February 4, 1921, through the efforts of Dr. Lamberg — then leading physician at the *Freiwilligen Rettungsgesellschaft* (Voluntary Life saving association) the first projection of a big instructional film was given. The showing of the picture occupied all the evening. The picture which was called *Wunder des schneeshuhs* (Marvels of the Snow Shoe) became celebrated throughout the world from that time to now. The Urania, which is in the forefront of all Europe in the preparation of educational and instructive films, has taken great pains in the production of its instructional pictures. Films on all lands, on all the peoples of the earth, travel and

exploration pictures, films on astronomy and natural history have been prepared by the Urania. The association has acquired great fame in Vienna and also in all Austria, thanks to the publicity obtained through the method of loaning out its pictures. The regularity of the productions and the excellence of the loan and grant organization of the Urania has also been appreciated abroad. There are today 64 clubs associated with the Urania in the Austrian Confederation, and the merit of this is chiefly due to the film.

The conception which the modern man has of the world — which until recently constituted an unknown plastic concept — has been formed by the instructional motion picture. Foreign lands and peoples are no longer mere words for us. Through the wonder of the motion picture, we have been able on occasion to spend an hour or so in foreign countries among their peoples. This direct knowledge of all parts of the world and its countries and peoples, its various forms of civilization and its cultures learnt through the film — and the sound film has still further increased our cognitions and delights the public still more than the silent picture — offers us a new classification of ourselves, our country and people which are in relations with the conception we have of the whole world. The great mission of the instructive film consists principally in the power to let us know men and things, which tends towards understanding and peace between nations.

An examination of the film activity of the Urania shows a long series of successes. Among the most important films we may recall *Savage Africa*, *Shackleton's South Pole Expedition*, *The Ascent of Mount Everest*, *Nanuk the Esquimo*, *Biene Maja*, *The Miracle of Flowers*, *Around the World*, *America, the Land of Illimitable Possibilities*, *Chang*, *World Melody* (*Melodie Welt*), *The Last Paradise*, *The Wild Eagle's Nest*.

On June 8, 1928, that is about 15 months after the inception of the sound film, the Urania projected the first talking film in Austria (*Triergon*).

The new invention was exhibited at the Urania in the autumn of 1928, and during the spring of 1929, in all the cities of the Austrian confederation, by means of travelling sound films apparatus. More than 2000 Austrians frequent daily the projections of the Urania, both in Vienna and other cities of the confederation, that is to say, about three-quarters of a million persons in a year.

The Viennese Association for the Education of the People (Volksbildungsverein) is in its 47th year of existence. When it was founded in the winter of 1887 out of a love of the people and a belief in the possibility of educating the working classes neglected by all to a greater spiritual elevation and liberation, approval and interest were on a very wide and enthusiastic scale for the new idea. On the other hand, there were persons in high places, and among them men of superior culture and humanitarian views, and with a knowledge of public life, who, basing their beliefs on the accredited opinions of those times, and imagining that they knew "the people", openly maintained that the scheme of educating the people could not hope to succeed. This was supposed to be because the people is satisfied with the conditions in which it finds itself, and in view of the brief period of leisure which it enjoys, has no other desire than to hear the popular music of the day, or at the most, to read some novel picked off a bookstall.

These criteria have been changed, and the concept of "education of adults" cannot be ignored in the life of the Austrian people.

The state which once almost supported the burden of educating the people has with the passage of time become the promoter of such education, and we ought to reckon it a great victory that the concept "elevation and education of the people" has been adopted into the official language of all the government departments.

The theatre for doctrinal pictures, founded in Vienna in 1924 in a building belonging to the Superior Popular Schools, is one of the outstanding installations. The first projections of the most important instructional

films took place there. Among these pictures may be mentioned: *The Great White Silence*, *With the Zeppelin Across the Atlantic*, *Java*, *The Secrets of the Sea*, *Krassin*, *Turksib*, etc.

As a result of the development of the sound film, the first experiments with this new means took place in 1928. In 1929, a modern building was installed with the latest sound film plant. In 1932, there were 397 projections for adults and 60 for children. The attendance figures in 1932 had risen to 100,000. Under the pressure of the present circumstances, the executive committee has extended its activity considerably in order to do something for the unemployed in the way of entertainment, having assumed the task of mitigating their unhappy lot by means of teaching and spiritual elevation.

The Association for Educating the People has had a scholastic cinema for nine years, and weekly projections for young school children are given. The preparation of the programmes is carried out in agreement with representatives of about 40 schools, which are near the scholastic cinema. All this costs much work and considerable money and the latter is hard to come by nowadays — but it has to be got together in the interests of the working classes since the fervour put into the campaign of educating the people is one of the most ardent aspirations of Austria.

Side by side with these organizations, there are also those associations which have the whole world as their field of activity. These too have included the film in their educational programme, according to well defined criteria.

While the use of motion pictures showed a steady advance until quite recently — especially the use of sub-standard film — but the economic crisis has slowed down the increase somewhat. All these organizations count on their box office returns to pay their way, for their expenses are considerable.

The Centre for Educational Work of the Social Democratic Party, with a marked reduction in the use of its plant has produced 1029 films. These pictures formed 487 pro-

grammes, of which 207 were the party's own, and 822 were by others, that is, lent pictures. There were: 114 propaganda films, 282 recreational pictures, 62 didactic films, 236 nature films, 239 comedies, 42 technical and trade films, 36 sport pictures and 15 fables. The organizers of the projections were: cinema exhibitors, 436, party organizations, 189; young socialist women workers, 83; operatives' staffs 38; young operatives, 31, Chambers of Work, 36; Friends of Children, 59; Alpine Associations, 4; sport associations, 54; various, 54. The number of sub-standard films lent shows a diminution, though an insignificant one, which can even be interpreted as a triumph of the reduced size picture in the educational field.

The Film in Collective Education. From 16 to 23 October, 1932 the scholastic congress of *Jugend und Film* (Youth and Film) took place in Vienna. It was organized by the *Austrian Youth Union*, and it stressed the great importance of the film as an aid to education. A symposium held with an issue of 15,000 questionnaires will shortly furnish us with some illuminating returns of the educational influence of the recreational film.

The Film for Physical Education and in the Personal Hygiene of the Working Classes.

The Vienna Sick Relief Fund, the greatest public utility institution of the kind in Austria, has issued the following information:

The fact that the animated picture produces a stronger effect and a more lasting impression on the spectator — a fact of essential importance in demonstrative film lectures — than talks accompanying lantern slides or wall pictures, induced the Sick Insurance Institute of Vienna in 1930 to make especial use of the film and more particularly reduced size film in its cultural and hygiene work.

This change was facilitated by the projection machine trade, which was only then able to place reduced format projectors on the

market that worked in a faultless manner, and without strong illuminants, and were adapted for both large screens or for small ones, for audiences of from 50 to 200 persons.

Two considerations of equal importance seem to us to arise from the foregoing: that the representation of the so called "good films" is a useful and quite convincing means of propaganda for spreading knowledge and instructions regarding the health of the working classes, and that the sub-standard film is always the ideal type owing to its small weight, its non-inflammable character, and the possibility of transporting it anywhere. Besides this, its price is proportionately low, and this is a point in its favour, because it is possible to obtain several copies of sub-standard size film for the price of one copy of normal film.

It must regretfully be admitted that it was, in a way, rather difficult to find pictures which mirrored the thought and life of the people of Vienna and the Austrian provinces, because the German production — this is said with all due respect for German film technique — did not correspond to the conditions already referred to, and on the other hand, it was not possible to go ahead with the manufacture of pictures on one's own account in view of financial reasons. In spite of this, it was possible, through arrangements come to with the State Commission for Physical Education of the people of Berlin, and with other producing houses, to prepare a programme of social hygiene pictures which was completed the next year with special propaganda films against accidents made by the Austrian Central Bureau for Preventing accidents. This due in part to the interest taken by the Sickness Insurance Institute which favoured propaganda for the prevention of accidents, carried out both in the streets and in the homes. This was especially the case because according to the Austrian law, the Institute was obliged to supply all medical assistance and provide a place of cure for all victims of accidents, the results of which last less the 28 days, and except in the case of accidents during work four-fifths of the total

accidents require a period of cure of less than 28 days for their cure.

All factory staffs, cultural associations and existing organizations of whatsoever political tendency, all the workmen and women workers insured with the Institute, and also the associations of the parents of pupils in the popular and high schools of Vienna were informed by circular of the intention of offering a series of explanations on social hygiene by means of reduced size film projections. After a few weeks, it was possible to realize from the number of inquiries and the offer of lectures, the great importance of health propaganda for the proletariat.

The Institute issued some statistics of its work from the 1st January 1931 to the end of June 1933, that is, for two and a half years. It had a real success which was recognized as merited by all the other Austrian insurance institutes for illness, and it encouraged them to undertake similar social hygiene propaganda work on identical lines. Both the reports of the institutes on their work and our own endeavours have allowed, it to be clearly seen that the way chosen by the Workmen's Sickness Insurance Institute of Vienna to organize health propaganda with the aid of institutions run by working classes is the right one, and that it is only by following this way that we may hope to attain our ends. It is only with the assistance of the workmen's organizations and those of the employee class that is it possible to interest the manual and clerical worker and their families in questions of hygiene so as to obtain with the improved health of the people a contribution towards the welfare of the population.

During these two years and a half, hygiene and accident prevention pictures were projected by 337 different organizations before 41,929 persons. The pictures were accompanied by some words of introduction and by explanations. If the number is not higher, the fact is due to the economic crisis and the shortage of money available at regular intervals. It is to be hoped that in the future it will be possible to succeed with improved conditions in the country, to

find larger means than those available today for educational and peoples' health purposes.

The object we must keep in view is the instruction in hygiene by means of the motion picture, beginning with children and continuing up to the end of the individual's life. The advantages are: fewer sicknesses an increased power of resistance to disease and the health of the people.

The Film as Propaganda for the Choice of a Trade or Craft.

Unfortunately we have too few films of this kind. All the same, there is a report issued by another bureau which shows their utility in high schools. In rural districts, six films are circulating. They were a gift of the ministry of Agriculture and Forests.

These pictures are: forage cultivation, cereals cultivation, beetroots, vines, raising live-stock and the milk industry. According to prevailing opinions, the instructive film dealing with trades and crafts is most efficacious when accompanied by a lecture and the projection of lantern slides.

The Film in Workmen's Clubs and Associations for educational, tourist, political and moral propaganda.

For propaganda of any of the above mentioned categories, the film is chiefly used in Austria for tourist purposes. We shall refer elsewhere to the obligatory regulation introduced in 1933, whereby all cinemas must show the Austrian weekly film review for patriotic political and moral education of the people.

The Film for Tourist Propaganda.

It is evident that the film constitutes the most modern form of propaganda for tourist purposes. It allows us to reproduce fully and in the most effective way the beauties of landscapes, and awakens in us the desire to live again by actually seeing the places and persons, what we have witnessed on the screen.

Owing to its movement, the tourist motion picture produces a much more lasting effect than the sight of a simple immoveable land-

scape which tends to become uniform, unless clouds or a storm introduce movement into the picture.

Winter sports films have enjoyed the greatest success, and their propaganda effect has been enormous. In this connection, we recall the pictures by Trenker, Franck and Schneider. Unfortunately, in this sphere the producer has and not seized his opportunities. Apart from a couple of Alpine scene pictures, nothing much has been done in this field.

The educational effect of good films which reproduce interesting Alpine scenes and natural science could be more efficacious if the producers took more pains over their work. The film should show us all the small details and contribute to the spread of a knowledge of nature, which is an absolute necessity for tourists.

This is why the film must be recognized as the best aid for advertising the beauties of the Alps and mountain sports. Doubtless an abyss divides theory from reality in this field of activity, since the output of such pictures is in the hands of persons who have no interest in the instructive film, and have not the requisite degree of culture necessary to understand its meaning.

The Distribution of Educational Films in Cinema Halls. There are at present in Austria about 890 exhibitors with cinemas of which, however, only one-fourth give daily show. The authorization to project pictures is subordinate to the granting of

a licence. Although 270 halls run on licences which are not their own, but belong to associations (communities, catholic organization popular education institutes, workmen's dwellings bureaux, philanthropic associations, education board, scholastic committees, athletic societies, etc.) the compilation of the programme in the cinemas is left in the hands of the exhibitor or proprietor of the hall. The influence of the owner of the licence, which is *necessary and possible*, is lacking.

This state of things could be notably improved if the owner of the licence were held responsible for the running of the cinema. It would be still further improved if the granting of licences to associations and institutions was made dependent on an obligation to carry some educational work in their halls.

The Union of the cinema theatres of Vienna has made its views on the subject known in the following terms :

In order to assist the progress and spread of educational films, we are quite willing to show pictures dealing with crafts and trades, and if it so desired, we are benevolently disposed to use our influence in this way among members of the Union. The essential condition for us to take up this attitude is that all educational efforts in industrial cinemas should be valued and appreciated like those in schools or a scholastic cinema. This means that every projection of an educational picture by a cinema exhibitor should be exempt from the cinema tax just as are all projections of films by any institute working for the education of the people.

INDIA AND THE CINEMA WORLD

By

A. Mukoyi

OF THE INDIAN BUREAU OF CALCUTTA.

THE cinema is rapidly becoming the chosen and effective medium of this century for the expression and synthesis of art and science. Its use for entertainment purposes will continue and develop, but it is now seen to be a potent medium for the enrichment of life, and for education in its many aspects.

The film is an essentially modern expression, and one of the best contemporary instruments for the dissemination of ideas by virtue of its popular appeal. But it is dependent for its future on the way in which those ideas turn out, and upon the will and policy of those who command it. The cinema is a formative agent of modern civilization in the results of which its future is contained. It is no longer necessary to emphasize the commercial importance of the film industry; it is indeed an enormous power and at the moment in spite of the slump, films are a tremendous industry in the world.

In India, like many other imports from the West, films were introduced, and in the course of years, the film industry grew up on a commercial basis. Though of recent growth and still in its infancy, the cinema has come to stay, and its development is being keenly watched by all lovers of art in this land.

Films and the Indian Public. The film audiences of India were for so long and are still being fed with Hollywood pictures, that Hollywood has successfully created a taste among the Indians, as it has done

throughout the world. If we look into any of the box offices of any local cinema, we find the pictures that rule the exhibitor, are those of adventure and sex. Adventure includes crime and war, and must mean their glorification. (How many of our people went to see "All Quiet On The Western Front" with an intellectual as well as emotional appeal?).

The great mass of India's middle class cinema-goers (it is mainly the English speaking middle class that contains the bulk of them) like to look at pictures of rich foreigners with nothing to do, and get some vicarious satisfaction from them. America has been shrewd enough to realize this and to produce pictures pleasing to their foreign clientele. Then there is the deplorably presented propaganda, triumphantly telling the world, how funny some folk find the religious beliefs of the inhabitants of India, China and other non-Christian countries.

In a land full of troubles and difficulties, with poverty famine, flood and unemployment existing on a scale never before encountered, Hollywood hands us sickly romances in settings bearing no relation to the life of the great mass of people.

Revolt Against Hollywood. Signs are not wanting that a considerable section of the filmgoing public in other countries has realized the extent of the deplorable moral and intellectual degradation that these popular sex stuff films have caused to the people and children who are in the habit

of absorbing undesirable notions subconsciously.

The aesthetic, cultural, and scientific side of filmwork has long been neglected by the commercial exploiters of the cinema, who have debauched public taste to an extent almost beyond remedy. To create an audience for artistic and intelligent films the world to-day needs hundreds of Pabsts, Eisensteins, and Pudowkines to undo the wrongs of the popular producers. The success of Pabst's *Kameradschaft*, or *Mädchen in Uniform*, films which we could not see in India, marked the end of the supremacy of American productions in Europe. In *Kameradschaft*, Pabst has individualized his characters whilst keeping them impersonal. The film is full of symbolism and required intelligence to understand it. *Mädchen in Uniform* is the first film of the first German woman director of any importance, Leontine Sagan. There is no man in this film, no real love story nor anything seductive. It is a film dealing with something negative, a neurosis, and by its unique direction and novel acting it held the winning number of votes in Germany. Thus we see the birth of a new school of thought in Europe demanding artistic and intelligent films bearing some relation with the actual life of a people.

Where do we Stand in India? Many of the pictures shown in India in our cinemas during these years not only failed to be entertaining, but were definitely boring. They were neither sincere nor had any technical qualities. The films produced from our studios in India have failed to justify their existence as a medium of expression. When the world is looking for an answer to its demand for a soul even from its entertainments, we in India are content with a picture of a story from the epic. Has it anything to touch reality? Do we find the practical urgencies which are throbbing in every heart of the people in any of the films? Do we not want to see on the screen those men and women who have been with us through one of the worst periods of Indian history?

Who will make a drama out of the work of millions of men and women in India of different types and classes engaged in our growing industrial cities, or in villages?

We forget that what the modern world wants is a cinema of achievements and not of contemplations.

But it will not be so easy to make such films. It will call for special writing of stories and greater talents than are now employed in the studios. In the Indian film world there is but a handful of persons who can create in terms of the motion picture. There are yet too few people who are film conscious. We have no film technicians, no training school for cinematography, and there is no place where the history of the cinema may be studied.

At the moment, no Indian film has been made round any idea except on some mythological story, which is as old as India's mountains. The productions of this kind of films will never make a great industry; we shall never be able to compete with any foreign film until we produce, using ideas and not the narrative as a basis for construction.

Idea and not the story is the material of film-making, and the country with the best ideas, and the greatest courage in expressing them will always command the screens of the world.

India wants Producers. A brief inspection of recent Indian films will show what a state of ignorance prevails in the minds of the producers.

They lack the genius of the European producers. There is no speed in the movements of their productions. They have not even that dynamic gusto, which we can see in the most ordinary American films. They have neither the richness nor the recklessness; in a word they are lifeless. The players are made up as dolls and filled with no enthusiasm of youth. They do not act, they do not express, they do not feel, and do not live. The man behind the picture, the hand of the producer is nowhere to be found in our films. It is the producer elsewhere who is in command of his material,

using every inch of the film to express and build up his belief. And we look out in vain for his personality in our pictures. There is no reason why we should not make films like the Americans, no reason but the scarcity of real producers among our midst. Why should other nations have a monopoly of all the glory and why should we be gasping for other people's romances while there is all the possibility of seeing the vital aspects of our national life on the screen?

How to create a Public.

That task is one for the film directors, but our cinemas can do much by intelligent selection of new films from abroad. Do we know how many films never reach our screens? And how many of the films we see in our cinemas can be accepted as real, as having meaning and purpose. *Murder of Karamazov, Kameradschaft, Mädchen In Uniform, The Last Laugh, No Man's Land, The Street Scene, A Nous la Liberté, Le million, Down our Street, Atlantide, Alone, The Dead House, Road To Glory*, may unfortunately never reach our public, but such films would have made our people think that we would not hesitate to say that out of two hundred films which we saw during the past three or four years, we can only name ten or twelve which at all impressed us by their sincerity or technical qualities.

Instead of looking to America for her 100 % talking and dancing films, let our cinemas show the outstanding excellence of photography, technique, and direction of the Germans, Italians, French, and Russians. There is a body known as the Board of Censors whose work is supposed to deal with the political, sex and moral side of pictures, but so far its activities have been limited to banning a few unknown films and spoiling by clumsy cuts wellknown films such as *Metropolis* or *Notre Dame*. Whilst allowing freely a monoto-

nously regular exhibition of luxury, bravado and fantastic adventure, it has indirectly helped a violation of our moral code.

We know that censors cannot help this situation; they have no positive educational programme to act as a criterion for them.

Motion pictures audiences must be consciously trained to know good pictures as a boy must be trained in a knowledge of the classics. A well rounded programme for the improvement of the film can properly begin with the determination of the positive criteria by which pictures are to be measured.

Scientists are beginning to tell us that they have useful information for society, if society will only accept it. Ethics should certainly have something to say about our future screen policy. So should psychology, biology, political science, sociology, and economics, as well as every other study with social implications. What is the probable effect of the picture on the opinions of the people who see it in relation to religion, capitalism, government and morality? Will it assist in opening their minds to new ideas? Answers to these questions will demonstrate clearly the need for a conscious plan which will insist on the intelligent use of films as a socializing factor.

Assuming, then, that science has reached the point where it can assist in establishing adequate criteria of conduct which are workable from a film producer's point of view, how can we effect a sufficient change in popular attitude to make itself felt in our studios?

The schools and colleges are naturally the first agencies to which we should turn.

Civic associations, governmental agencies, women's clubs and philanthropic foundations can be of great service in this direction.

Such effective forces can be made to outweigh any harmful influence of the films, and in the future result in vastly improving the production of films.

THE FILM AS AN AUXILIARY MEANS FOR FORMING NATIONAL SENTIMENT

BY

Prof. Adolf Hübl,

OF VIENNA.

Suggestive Qualities of the Film.

THE compelling force which the film can exercise, on human thought through two powerful means of approach — sight and hearing — demonstrates that the motion picture is an instrument of exceptional importance and efficacy to influence the masses of the people.

In the ordinary way, in a darkened hall, which is insulated from all outside distractions, the spectator witnessing a projection with many other persons united in a similar communion of spirit, perceives and feels image and sound and the various phases of the film at the same instant in which all the other spectators are impressed, and reacts to common sensations at the precise instant as the men and women sitting near him. His reactions effect his neighbours just in the same way as he is subject to the influence of theirs. The whole hall of a cinema is like a huge sounding-board by means of which one person's reactions, scarcely perceptible in themselves, become on being released wonderfully increased in volume by the phenomenon of community of feeling. The influence of the vicinity reaction at the cinema can well be illustrated by this fact which has been noted by shrewd observers, and proves the effect of several persons sitting together and being subjected under special conditions to the same impressions at precisely the same moment. The fact in question is that, according, to the statements of persons who

have had occasion to study the phenomenon, no one has ever heard anyone in the front row of a cinema hall laugh out aloud, even at the most comical moments of the picture, even when the rest of the hall is shrieking with laughter. The psychological explanation of this fact is that the man in the front row has no one in front of him, but only beside him. He is on the margin of the community. He is not right in the mass, and is therefore largely exempt from the laws of mass reactions. The same thing is true in all manifestations; the person on the outside cannot properly participate in any general manifestation.

The compelling effect of the film — just because it is a form of spiritual resonance, the general effect of which on men is continually increasing — cannot be compared in any way to the fascinating effect of any other medium. The book is addressed to the individual; there is no resonance. Wireless programmes are listened to in private homes, and the knowledge that countless other persons are listening to the same thing at the same time does not do much to increase the effect. A lecture approaches the fascinating effect of the motion picture, but even when it is accompanied by lantern slides, the spectators' attention is only held to a minimum degree by the sight of the fixed images. Fatigue is felt a few seconds after the picture has been on cloth. The attraction of the theatre is more like that of the film, but does not equal it in intensity. The appeal of the theatre is

necessarily based on the word or on song (opera) or on the stage effect (reviews, etc.). It does not therefore act acoustically and optically on the spectator in same degree with the same force and at the same time. There is therefore lacking to it the rhythm which attracts. There is not the constant change between the near and the distant which is so fascinating in the motion picture. There are no close-ups to be followed by long shots or by pictures taken at special angles which form one of the attractions of the film. While in the case of the theatre, the spectator's distance from the stage is always the same, in heightened moments the cinema can reduce this distance to almost nothing.

The National Film in Austria.

This fascinating effect of the motion picture shows us how, despite all objections, the motion picture is an important and precious auxiliary in forming national sentiment and patriotism. I have indicated here the various possibilities for its use which have been noted in Austria during the last ten years. There is no attempt to make a complete demonstration of the case, but it is also true that it would be easy to multiply the cases given without difficulty.

(a) *Use of the film in trade extension schools, in summer colonies and hospitals for the education of young persons who have completed their studies.*

Trade extension schools are provided with cinema apparatus for film projection. The film illustrates as a rule the best known crafts and trades so that the young people can, by this means, form an idea of their future surroundings when at work. Until they have actually chosen their trade or craft in vocational guidance schools, the motion picture gives the young people a chance to learn various crafts and trades, and helps their final decision. With the assistance of projectors of the kind referred to, high schools and trade extension courses can — and indeed often do — increase the

students' knowledge of their own country by showing geographical pictures, illustrating the home land. Sport films are often shown in trade extension and vocational guidance schools. Such pictures teach the adolescents not to neglect the care and hardening of their bodies. Pictures showing the flights of some national flying hero such as the Austrian Kronfeld or any other national person in the forefront act is a form of national propaganda.

A large number of films are shown in the summer colonies in Austria, and with great success. In winter sports colonies, pictures illustrating winter sports are frequently projected so that the young people can get a taste for skating and ski-ing if they are not already devotees, or can have an opportunity to study the technique and finer points of such sports.

Didactic or didactic-recreational films are always shown in the sanatoria and hospitals for consumptives at Grimmenstein, Strengberg and Horgas-Enzendorf. These pictures have a useful effect in helping the cure since they provide a satisfaction for that desire for diversion which is increased by the monotonous life of such establishments. A sick person in good spirits is more favourably disposed to cure than an invalid in bad spirits.

(b) *Films to Increase Knowledge of one's Own Country.* — For some time now in Austria it has been obligatory on cinemas to project a weekly picture inculcating national sentiment and patriotism among the people. The pictures do not only contain government news and information for the people, but set out to illustrate important events and facts regarding Austria. The number of subjects touched upon in these films is very large. These weekly reels include views of Austrian beauty spots, folklore pictures, government enterprises, arts and crafts exhibitions, social and economic initiatives, the work of scientific institutes, sports, fine arts and other aspects of the life of the people.

Events in the domain of international cooperation are also included, such as pictures of the sessions of the League of Na-

tions and so on. The weekly national news-reel is tending to become in this way an instrument of the greatest importance. Apart from the national news-reels, various film producers have made some patriotic films for exhibition in the schools and in clubs and also in public cinemas. The oldest pictures of this kind go back to the productions of the Austrian *Urania*. This association produced pictures on the Salzkammergut, on the Styrian Erzberg, a picture on Hall in the Tyrol. These films have been projected under the auspices of the Vienna *Urania* and the *Urania* clubs in the provinces of Austria. The Austrian Radio Society the *Ravag* has repeatedly made use of the motion picture, shoving for instance its own technical establishments and also landscape views of Austria for the information and pleasure of the population.

A particular instance of this was the big picture *Radio-Wien* produced in collaboration with the *Urania* of Vienna and the sound film *Austria*.

(c) *The film as an auxiliary means for historical, artistic and scientific documentation of all events having an ethnological or folklore character.* — The Austrian national weekly news-reel must be mentioned again in connection with this form of film activity. The reel has assumed the task of making pictures of events of an exceptional character so as to prevent their being forgotten. The *Urania* clubs which we have already referred to have the same object in view. The *Urania* of Vienna possesses today a historical film of the Prater of Vienna (1910) which deals with popular traditions and is of considerable value. Another picture records the carnival races in the Krakau plain; the Graz *Urania* has a picture on popular customs in Styria (*Samsonumzug* and *Reifentanz*). It should also be mentioned that the teaching faculty has produced some pictures among which we may mention a tourist and landscape film dealing with popular traditions in Burgenland and a sub-standard on the life of the Austrian mountain folk.

The Austrian Bureau for luminous pictures and films (Ministry of Public Instruc-

tion) has undertaken the work of gathering together films of this type. The pictures are chosen ones, often produced in an occasional way by private firms over a space of years. They are preserved from destruction, and kept in the Austrian State archive for lantern slides and films. This bureau also preserves some notable Austrian films, including reproductions of old films formerly kept in the then existing cinema bureau. In addition to the before mentioned bureau, there is the film repository of the Vienna *Urania* and that belonging to Austrian Cinegraphic Scholastic Union. It is hoped that the most notable pictures in the national news-reel will be preserved in a similar way in the repository of the film Bureau connected with the Ministry of Public Instruction.

It would appear that the collection of sound films for the preservation of languages and dialects, forms of expression and pronunciations necessary for comparative ethnological studies has not yet been begun as was definitely planned.

A documentary collection of gramophone discs does, however, exist. It is hoped that the idea of collecting and storing in a methodical way sound films of a linguistic character according to a well defined plan will be carried into practical effect in Austria before long.

(d) *The Film for Tourist Propaganda.* — A number of tourist and movement of foreigners films have been produced in Austria by various competent producers. Among them may be mentioned the weekly Austrian review produced by the Patriotic Sound Film Society.

The direction of the Austrian Automobile Postal Services has shown a large number of tourist pictures not only in Austria, but also abroad. In addition to these, the local governments of the various federated provinces such as the Voralberg and Styria have issued tourist propaganda films. There still remains much more to be done in this field of activity, but it is probable that the authorities will make an energetic move in the matter.

Conclusions.

The instances quoted (a to d) can easily be multiplied, as was pointed out in the beginning of this note. It is not possible to treat the subject fully here. We have only attempted to give a few examples of the principal effects of the use of the motion picture as an aid in developing national sentiment and patriotism.

There is in Austria a firm conviction that the sound film is an excellent means for inculcating patriotic sentiments and increasing a people's self-esteem.

It is to be hoped that all the forces operating in this domain may shortly be united,

whether private or government. The National Society for the collection of sound films — as a film-producing society — has a vast field of activity to cover. The Ministry of Public Instruction which has overcome the initial difficulties by establishing its bureau for luminous pictures and films, thus creating an instrument for collecting and preserving worth-while pictures would seem to be the guiding hand to direct the union of all efforts along these lines, without in any way lessening the opportunities of individual and autonomous effort especially the efforts of industrious private producers.

THE CHILDREN OF THE WORLD

By Sir EVELYN WRENCH. (Founder of three world movements, the Overseas League (confined to British subjects), the English-Speaking Union (confined to Americans and British), and the All Peoples' Association (APA) whose membership is open to all nations).

Many great congresses have met in the Eternal City, but surely none fraught with greater possibilities than the International Congress of Educational and Industrial Cinematography, held in Rome this month. Since the early days of the cinema and the talking film, I have thought that we have hardly begun to understand the wonderful instrument for uniting the coming generation in the bonds of friendship, which has been placed in our hands.

For thirty years my work has been primarily devoted to the cause of promoting understanding among nations. I have accepted the theory that we must work through nationalism to internationalism. The individual must be a good citizen of his town before he can be a good patriot of his country, he must be a good citizen of his country before he can give loyal allegiance to Europe and the World. The same doctrine is true of the young, they should love their countries *as well* as the greater units of Europe and the World. To my mind the task on which all who are working for world unity must concentrate is that in each case we must try to instil the right kind of loyalty. We shall never get lasting peace in the world until we disencumber our minds of wrong thinking.

In lecturing on the subject of international relations, I frequently use a simple diagram to illustrate the way in which our various loyalties should dovetail into one another.

The real problem before us is to incite and devel-

op in the youth the right kind of loyalties. We want him :

(A) to love his family, but not to hate other families ;



(B) to be proud of his school or university, but not to hate other seats of learning ;

(C) to love his town or district, but not to hate neighbouring towns or districts. In the Middle Ages, Perugia hated and fought with Assisi, in my country England with Scotland ; but we have got past that stage in our evolution ;

(D) to love his country, but not to hate neighbouring countries ;

(E) to love his race, but not to hate other races ;

(F) to love his continent but not to hate other continents. No Europe *versus* America or *versus* Asia theories must be permitted.

In the cinema, both in the silent and talking film, we possess a wonderful instrument of unity if we use it properly. Could not the present gathering at Rome draw up a syllabus which we could all use? If His Excellency "Il Duce" would give a talk in simple words to children of other nations on why we should be friends, which Signor Mussolini could do in French, English and German, then we might get "talkies" from other world leaders and establish an exchange library of films. In my youth I was intensely interested in the welfare of the British Empire. If I could have seen on the screen and heard the words of men like Sir Wildrid Laurier (French Canadian), President Kruger and Cecil Rhodes (South Africans), Richard Seddon (New Zealander) and Alfred Deakin (Australian) I would never have forgotten such landmarks in my life.

I would advocate for circulation in Europe a series of films such as "Why European Boys and Girls should be Friends", "We are all Europeans", "What other Countries can teach us", "Why War is stupid", and "Human Nature *does* change". All these films would have to be carefully prepared by experts in film-producing and by child psychologists.

Another very important problem in the world today is what is going to be the relations of the white and coloured races during the next 100 years. Is "the rising tide of colour" going to make a clash between East and West inevitable? Surely the cinema might play a decisive role in preventing a

racial war if we carefully prepared a series of talking films for children emphasizing our common humanity. Alas, many of the commercial films today do incalculable harm in stirring up race-hatred. I understand that in Brussels an All Childrens Association is being established. I commend this work to them.

Quite apart from the sphere of international relations, the cinema might play, and is increasingly playing, a vital rôle in inculcating a sense of civic duty in the young. Carefully prepared and interesting films urging the importance of the preservation of wild life, inculcating kindness to animals and the necessity for keeping our streets and public parks clean and appealing to the young not to scatter litter — these are but a few of the suggestions which will occur.

We live in an age of integration. On the continent of Europe we have witnessed the growing internal unity of Italy and of Germany. During the past half-century strong forces have been at work unifying the far-flung British Commonwealth.

The next step for us Europeans — is to work for an economically united Europe, a Europe from which this nightmare of tariff walls and restrictions to trade will be removed. We need to instil into the minds of the children of all our countries that in addition to their local loyalty, they are Europeans. That Europe has a splendid past, that we should be proud of our heritage. We must create a European ethos, and as Europeans, and as an example to the rest of the world, we shall start by taking a pledge to carry out in our lives the Christian precept "Thou shalt love thy neighbour as thyself".

THE CINEMA AND THE PROTECTION OF YOUTH

BY

Egizio De Luca.

THE protection of young people is a necessary corollary to their education, and thus constitutes one of the most serious problems of modern society. Its importance is the greater in that it involves all the vital interests of the nation, since the strength of a collective body resides in the strength of its individual members. This accounts for the fact that there derives from modern social doctrines a current of opinion which tends to place national education in the forefront of Government programmes.

This tendency is most marked in countries in which society has undergone a transformation in consequence of new ideologies, as in the Communist U. S. S. R., in Fascist Italy, in Nazi Germany.

In order to ensure the stability and continuance of the régimes which they have instituted, the Heads of those States have done all they could to educate youth in accordance with the principles which they considered best. This, however, is not the problem that concerns us here. What we would stress is the essential importance of every method designed to facilitate the task of the State in the matter of national education.

Without depreciating the value of books, the chief means employed hitherto, it may be admitted that they are proving less and less effective in influencing the present generation, which is continually subjected to the ever-growing strain of the bustle of modern life, with its complete absence of opportunity for steady, intensive reading. The cinema,

on the other hand, an almost unexplored world, offers in this direction an unlimited field of action and a guarantee of sure success. There is no reason, therefore, for not taking advantage of it. Indeed, it might be said without exaggeration that the cinema alone can enlarge and improve upon the results obtained by the systems hitherto employed.

Once the means has been found, it remains to determine the solution offered by rational development over a wide range. The best way to do so is to turn our attention to the various spheres of cinematographic activity and to indicate the policy to be followed in each particular case.

It might thus be possible to define each sphere of activity by reference to the specific purposes to be achieved. This would give us, first and foremost, the propaganda cinema and the recreative cinema. The former would provide a means of protecting young people from all the morbid influences prejudicial to their physical and intellectual development; the latter would offer them a healthy form of amusement.

But it is not possible to discuss the problem of the protection of youth without denouncing the harm that the cinema of to-day has done to the minds of adolescents. This might appear to imply the denunciation of the cinema as a serious danger, which would seem to be a contradiction of our premises. The cinema, as it now is, is not intended for children or adolescents, and it thus becomes essential to reorganize it intelligently,

so that its dubious or dangerous influence may be prevented from reaching the minds of the very young.

This raises a second problem, which is not very difficult to solve, and its solution will be the more readily arrived at by passing in review the various forms that the cinema has introduced or encouraged up to the present day.

Here we find ourselves, in the first place, at variance with one class of religious educationists, who consider that forbidding visits to the cinema is the only way to ensure tangible results. But beyond all doubt so uncompromising an attitude is bound to be still more dangerous to the young. If boys, whose knowledge of the world is thus limited to what is ideal, pure, and best in it (method of religious education), suddenly find themselves in contact with life as it is, with all its aspects of perversity, hypocrisy, and impurity, they will realize that they have been given an exceedingly one-sided education. Then, being free to do as they please, and moved by curiosity, they will allow themselves any and every form of amusement. Youths from 15 to 19 years of age — that is, when they are going through a decisive period in the formation of character — will be exposed to the gravest dangers.

One group of educationists place all their hopes in energetic parental action. But, though some parents take the greatest interest in their children's education from every point of view, countless others not merely pay no attention whatsoever to it, but themselves blindly take their children to every kind of entertainment, thinking only of their own amusement.

Since, then, it is impossible to count upon parents, who have fallen in more or less with post-war slackness, and since, on the other hand, it is impossible to prohibit the cinema absolutely, the only solution is to organize special performances for the young.

Such a task is a very difficult one, for these special shows demand a deep knowledge of the psychology of youth. It must not be forgotten how powerful the sense of

contradiction and the fascination of the unknown are in young people. Accordingly, taking these characteristics as a basis, the aim must be to leave young people as far as possible in ignorance of the purpose of these performances. This is an indispensable precaution, without which any attempt to achieve the object in view would not merely fail, but would produce a diametrically opposite effect. It is important, therefore, not to arouse the lively imaginations of young people; for, with their natural repulsion for everything that looks educational, they would promptly draw the most extravagant conclusions, probably very wide of the mark.

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Before considering the influence of the cinema in Egypt, it may be useful to note briefly the essential characteristics of Egyptian youth — a method which will enable us, moreover, to examine more easily the systems that should be followed and the purpose to be achieved in our work of protecting young people by means of the cinema.

Any attempt to educate youth can succeed in Egypt only on condition that it is more or less identified with the characteristics of the Egyptian people, not only because Egyptian youth is different from any other Western youth, but also because it is conspicuously heterogeneous.

In order really to understand the temperament of Egyptian youth, some attempt must be made to classify it in categories; this is not difficult, since, as just noted, the element of cohesion is lacking. The Egyptian population can thus be divided up into three separate groups, and considered accordingly: intellectual youth, the poorer classes in the big towns, and the element which predominates in Egypt, namely, the fellahin.

In the big towns, of which there are few, contact with Europeans has contributed very largely to the progress of civilization and the introduction of modern customs. Thus the majority of young people have realized the

essential and indispensable advantages of education.

The truth of this statement may be proved by reference to the statistics of scholastic institutions, the figures for which are steadily increasing. Moreover, the attendance of students at the university and higher educational establishments has also increased considerably, and indeed exceeds Egypt's requirements. Further, the Egyptian Government, which attaches importance to the future of youth, systematically sends to Europe scholastic missions, consisting of the best pupils, to enable them to perfect their studies. On their return, these youths — whether deliberately or not — will inevitably introduce Western customs in their systems of life, and thus propagate European ideas and habits in their immediate surroundings.

The intellectual youth thus differs hardly at all from Western youth, except in a few expressions of life that could easily be assimilated.

Egyptian youth, for example, cannot be accused of not caring for art, but is open to the charge of doing little to cultivate it. In fact, except in university circles, there is no centre in which art is honoured, and, moreover, the students' taste does not seem to lie particularly in the direction of literature, music, painting, sculpture, or the like.

Notwithstanding this fact, the Government's activities in this sphere are very marked, as witness its attention to all matters relating to art. Realizing the importance of museums as means of artistic propaganda, it has not shirked the expenditure necessitated by the extension of the Cairo Museum, which houses all the masterpieces of ancient art, or by the creation of new museums. But the attendance at these institutions is unfortunately very low, and they seem, as one important local daily paper has pointed out, to have been built purely for the benefit of tourists.

The position as regards sport is very much the same, and only during the last few years has there been any movement in the matter; even so, the athletic organizations

are lacking in activity and initiative, the defect being most marked in the scholastic institutions, where sport is relegated to quite a secondary place.

One defect that may be noted in Egyptian intellectual youth is the lack of interest in foreign countries, though much might be gained by assimilating the best that can be derived from such forms of culture.

* * *

Let us now consider the youth of the lower classes in the big cities, an interesting and a picturesque category from many points of view. These young people's ignorance, their customs, and their habits of life, show on how much lower a plane of civilization they still are. Consisting as they do, for the most part, of illiterates, with little desire to acquire even the most elementary knowledge, their intellectual level leaves much to be desired. They live, moreover, in crowded and often unhealthy areas, in which the high rate of mortality reveals the completest ignorance of the most elementary principles of hygiene, so that their physical development is always in danger. Parents do not seem to trouble very much about the moral education of their children, who are exposed from the tenderest age to the perils of the street. All this has a very lowering effect on the morals of the young people, who, stimulated by the climate, indulge in all sorts of sensual pleasures.

Lack of education has also made these young people simple and credulous, so that enthusiasms and sentiments are very rapidly stirred, a state of affairs which predisposes them to fall victims to the worst influences.

In the provinces, the dominant element is the fellah — for it must not be forgotten that Egypt is an essentially agricultural country. The young fellahin live in the poorest surroundings, where the ancestral mode of life has hardly changed since the distant times of the Pharaohs, and they are at an even less advanced stage of civilization than their compatriots in the towns. The Government

does its best to inculcate the principles of education and hygiene, but is hampered in its efforts by the laziness of the natives, who attach very little importance to what is taught them.

In their eyes, the younger generation is nothing but a collection of hands to till the soil, and they therefore do their best to beget as many children as possible, so as to keep up their numbers. A wretched state of affairs, accentuated by infant mortality, which decimates children at a tender age, owing to disregard of the most elementary principles of hygiene. To realize this, one need only glance inside the native dwellings. The sight which meets one's eyes is a sad one — members of the same family huddle together in a single room, without ventilation, to rest after their daily labours, often sharing the quarters with their domestic animals. In addition, the extreme poverty which now reigns among the fellahin has further increased the danger to which Egyptian youth is exposed.

* * *

Some indication has been given of the weak points in the character of Egyptian youth, but it may perhaps be possible to determine in the light of those very defects what kinds of films are suitable for the protection of these young people.

First and foremost, public attention should be directed to films which make a deep impression on the minds of young people, such as films dealing with the underworld, or the adventures of cowboys, gangsters, or thieves.

Films of this type, shown to persons with some critical sense will do no harm ; but if shown to a public consisting almost exclusively of young illiterates, such as are found in the lower classes in the big Egyptian towns, they will have a dangerous success. And what is the consequence ?

These young people, fascinated by such films, and gifted, moreover, with a highly-developed sense of imitation, seek to copy the actors' exploits as far as possible. It

might be claimed that the danger is not serious, as the majority of films end with the discomfiture of the more reprehensible characters, and there is thus no incentive to the crowd to imitate them. But one thing that is forgotten is the abundance of ingenious and original means employed to outwit the representatives of the law until the very end of the film. These means are just what is most tempting to young people who are ignorant of the most elementary rules of morality, and who may even imagine that they are more cunning than the characters who have paid the penalty simply because they committed mistakes which the spectators could correct.

There is no doubt whatsoever as to what the effects of such a state of mind may be, and statistics reflect this quite clearly, for the number of murders committed according to cinema methods appears to be on the increase.

What can we think, after this, of films in which the action is so conceived that the spectator is involuntarily tempted, almost against his will, to defend against society individuals who have placed themselves outside the law ?

And this is not all. How can we not protest against films which may cause unlimited evil by appealing simultaneously to the young of all classes ? Films which represent life under an unreal, meretricious, and flashy aspect, and unquestionably inflame the ready imaginations of boys and girls.

Light love-affairs, which always turn out successfully in the cinema, give young people wrong ideas and encourage them to follow them, but reality is very different, and the inevitable consequence is the break-up of the family, which already, under the influence of modern life, finds it difficult to remain united and keep together.

The deplorable effects of the cinema as it now is are doing much to counteract the efforts made on every side to produce a healthy younger generation. What is wanted, therefore, is more adequate protec-

tion, more intensive propaganda, with a view to persuading directors of studios to produce films of a less dangerous character.

Let us now consider the active aspect of the cinema and the means that might be exploited to protect Egyptian youth from anything calculated to endanger its development.

The first essential is the installation of a cinema-hall with the proper technical equipment in every school.

In addition to the educational films that can be shown there, it will be necessary to show others inculcating upon the pupils the importance of their spiritual as well as their physical welfare. Moreover, films should be produced with the idea of making young people understand their responsibilities towards society in order to prepare them to derive full benefit from whatever may be shown them, warning them, for example, against all false and hypocritical theories which have a particular fascination on the surface, but whose real purpose is disorder and anarchy.

Realizing their own personality, young people will understand the importance of sport better by reference to their own physical development and its repercussions on the greatness of their own country. They will be induced to engage in it more frequently by the use of methods which the cinema alone can bring within the scope of all.

Similarly, the cinema alone can reveal the tragedies ensuing from disordered living and the abuse of pleasure. Films of this kind require great delicacy of treatment and much tact, and, even when they are shown to youths over 17 years of age, should be kept as far as possible on scientific lines.

The cinema affords the readiest means of disseminating the benefits of hygiene and education among the lower classes of Egyptian society. For this purpose, various innovations will be necessary. The Government, for example, should open cinema-halls in the thickly-populated quarters of the towns, and show films for educational and hygienic purposes. In order to attract

the crowd, the shows should be free, and should alternate with recreational films. The Arab's natural curiosity in regard to everything new would suffice in itself to ensure the success of such a venture. This is not the difficulty — it is not enough to attract the crowd: they must be convinced of the truth and value of what is shown to them, and films are therefore required, which will have the effect of persuading the spectator to adopt hygienic measures or habits of living to which he has not previously been accustomed.

For years the Egyptian Government has been carrying on an unremitting campaign against drug-traffickers and addicts. Its efforts have for some time past been crowned with success, but they would have been far more effective and rapid had it been possible to inspire in Egyptians a horror of such drugs. For these cases, the cinema offers an excellent medium, for no better means exists of representing the effects of hashish, cocaine, etc. The abolition of these evils would be the greatest blessing for the nation, since the damage that they cause, both physical and moral, is undoubtedly sapping the energy of the race.

The Government's activities should not be confined to the towns, but should extend to the country districts, and for this purpose travelling cinemas, carefully equipped, might be of the greatest value to the peasant population. In addition to agricultural films that have already proved successful in Europe, educational films might be shown, a method calculated to produce the best results, in that it would raise the fellahin from their present condition of ignorance. The task is indeed a difficult one, since, in addition to the specific information that would have to be given, it is essential to break down the prejudices of which the peasant's mind is full. In any case, it would be a great victory in itself if he could be rid of this kind of suspicion, which prevents his acquiring a higher civilization. Characteristic evidence of their state of mind is to be found in the smallest act of the fellahin. They prefer,

for instance, to be treated by quacks rather than to trust themselves to qualified doctors. The Government does what it can, but finds it difficult to overcome the fellah's obstinacy. Speeches, lectures, advice, produce no result. The cinema certainly offers a better guarantee of success, since it conveys by visual means all that is apprehended through words.

This is a brief outline of the benefits that youth might derive from a means of instruction so expressive as the film.

The task of the cinema is equally important from the recreational standpoint because it is called upon not only to amuse young people, but also to remove them from the harmful influences to which they may be exposed. This is everywhere necessary, since there is no doubt that in order to train young people satisfactorily it is not enough to bring them up as carefully as possible — they must also be protected against anything that might harm them morally and physically.

Hence every effort should be made to attract young people to the recreational cinema — which is not a difficult matter, provided it meets their tastes and desires.

A film with a scenario suited to the age of the spectators is bound to be a success. Consequently, the needs of children from 6 to 12 should not be overlooked, because, if we wish young people to grow up with sound morals we must begin their training at a very early age.

There is no doubt that at the present time the public that is most dissatisfied with the cinema is the juvenile public. Except for a few comic films and animated cartoons, there is practically nothing to interest young people. The harm that may be caused by this state of affairs will be readily perceived, because, for lack of anything better, young people are induced to attend every kind of performance, where their morals may be perverted and their future endangered.

Yet it would be perfectly simple to find a remedy for this evil, the extent of which has so far been only dimly discerned. All that need be done is to increase the number of

comic films and to produce others based on juvenile literature. No one can complain of any lack of subjects; for Perrault's fairy-tales and all the wonderful stories which the childish imagination finds so absorbing provide an inexhaustible source from which scenarios can be drawn.

Films of this kind would receive a warm welcome from juvenile audiences of every nationality, for if there any class of people in the world who understand each other perfectly, it is the young.

The popularity of the performances would doubtless be increased considerably if the parts in these films were taken by juvenile actors. The latter have been employed on the stage for a long time past with ever increasing success, and we might instance the popularity of marionettes — the *Teatro dei Piccoli* — which crowds flock to see whenever performances are given in Paris. Moreover, all the suggestions put forward in regard to the cinema might be helpful to anyone desirous of engaging in child welfare work in general.

We will now deal with educational films intended for adolescents. The production of such films is a much more delicate task, success being less certain than in the former case, since young people over 15 imagine that they are already grown up, and therefore think they can do anything they like.

Nevertheless, success need not be despaired of, because it is always possible to show them on the screen things that will interest them and that they cannot find elsewhere. For instance, young people have a passionate love of adventure, and a magnificent series of scenarios could be adapted from the innumerable adventure-stories which are part of the literature of every country. The swashbuckling romances of Alexandre Dumas represent a type of literature which has attracted young people in all parts of the world, and there is no reason why such stories, the enormous popularity of which has already been proved, should not be drawn upon.

Moreover, in order to make a performance

of this kind more attractive, topical events in all parts of the world, of interest to young people, all the latest sporting news, and, in short, everything regarded as suitable for the young, could be shown. The type of performance should be varied, so as to satisfy not only the young people's imagination but also their emotions.

The recreational film should be based on the foregoing principles. In order to make sure of its success, and to prevent young people from attending performances of any other kind, cinemas should be opened in all educational centres. This is the best means of protecting young people, because the films would come under the direct control of the teachers, though their scope need not, of course, be confined to school life.

Several ventures of this kind have been made in Egypt, but have not met with complete success, owing to the lack of sufficient films. All the cinema managers, however strong their desire to provide suitable per-

formances for young people, have seen their efforts frustrated on this account. The future of the juvenile cinema is in the hands of the producers, and everyone whose aim it is to protect young people should urge them to do their duty in this respect. It is a duty in which none should fail.

We see, therefore, that numerous excellent opportunities are open to the cinema in the educational field. The film is one of the most suggestive means of instruction, because it can present the most abstract subjects to the spectator's eye in the clearest possible manner. In addition to its great popularity, the emotion which it everywhere arouses makes it the most powerful means of expression that has ever been employed. It would therefore be a matter for infinite regret if the opportunities outlined above were to be let slip, especially in view of the fact that little or no opposition would be encountered in carrying out the schemes.

CINEMA AND PROTECTION OF INFANCY

(Summary Report of the Cinema and Broadcasting Commission of the International Women's Council)
By LAURA DREYFUS-BARNEY.

The protection of infancy is happily a matter of great concern for the world at the present moment, and efforts are being made on all sides to protect young children from the dangers which surround them so that they may develop physically and morally. In the following rapid report we shall limit ourselves to selecting some examples here and there to illustrate the manner in which the cinema influences youth.

HYGIENE IN CINEMA HALLS. — The cinema today forms part of the life of children. We may ask ourselves what effect it has on their health.

Physically, children will benefit from the measures which have been taken regarding the hygiene of cinema halls. Great improvements have been made both in those edifices built specially for motion picture projections, and in those transformed for that purpose. What is not satisfactory yet is the hygiene in the small halls in the provinces, and especially in the villages, and often enough in the

rooms where scholastic films are shown. Sometimes it is the class-room which is transformed into a cinema hall, or the choice may fall upon any room or building, such as halls in the mayor's office, in barns, or unoccupied dwellings. Great efforts have been made, however, in this department, and in Denmark, for instance, we may say that almost all possible measures are taken both for the proper construction and maintenance of cinema halls. In interesting reports which have been brought to our notice, Australia, the United States, France, Italy, India, Greece, Switzerland and Sweden can show improved conditions in their motion picture halls as regards general hygiene, aeration, and inspection.

PRECAUTIONS AGAINST FIRE. — It is well known that there is a great risk from films catching fire, which makes it necessary for scholastic pictures always to be made of non-inflammable film. This type of film is used in many countries, but the dan-

ger of fire still exists if the halls are not properly protected in other respects, or if films which are not strictly scholastic are shown. It is to be hoped that further improvements will be made in non-inflammable film, which is still too costly, somewhat fragile, and not always clear. If this improvement were secured, it would facilitate its universal use. In France the use of non-inflammable film is obligatory in all schools under the authority of the Ministry of Public Instruction, and in all evening courses and institutions subventioned by the ministry.

CARE OF EYESIGHT. — The motion picture has an influence on children's sight. It appears from enquiries made that about 25 % of children complain of eye strain after seeing a film. The girls are more subject to this form of fatigue than the boys, and the children who frequent technical schools more than those attending secondary schools.

In order to provide a remedy for this grave drawback, care must be taken to avoid the use of worn out or damaged pictures, while a careful watch should be kept on the running-off of the film from the reel so that it is smooth and regular, while the printed sub-titles ought to be clear and distinct. Seats close up to the screen ought not to be occupied by children.

The darkness of the halls is certainly harmful to children from the psychological point of view. The question has been discussed in several countries. In Belgium, the Cinema Commission has made some experiments as a result of which partial lighting has been instituted in two Brussels cinemas without any detriment to the visibility of the picture. Experiments are being made to install a system of diffused lighting, known as *tamisé*; which allows perfect visibility of the picture in a half-lit hall. In some cinemas, the boxes have been abolished. Details of this have been supplied by our colleague Mme Janvier of the Belgian Women's Council in a very interesting report presented by her at Stockholm in June 1933 on the occasion of the meeting of the Women's International Council.

Similar experiments have been tried in Scotland. Films have been projected in halls where children could take notes, and where the teacher, thanks to a special arrangement, was able to stop the film for several minutes at the most important places.

A French engineer, M. Grozet has invented a screen which allows pictures to be shown in daylight.

SLEEP. — The question of the effect of the motion picture on children's sleep and therefore on their nervous system has been considered.

A most interesting inquiry has been organized on this point by the Payne Fund with the object of determining if the child who frequents the pictures a good deal suffers in any way in his health and sleep as compared with children who visit cinemas rarely, or not at all.

The inquiry was carried out among thousands of young boys and girls and on very small children in a dozen towns in the United States by Dr. Samuel Renshaw, Professor of Experimental Psychology at Ohio State University with the aid of his assistant Vernon L. Miller. A Home fitted out at Columbus, Ohio by the Ohio State Bureau of Juvenile Research has permitted these two scientists to make some most careful and detailed studies. Thanks to the installation of a "hyponograph", attached to the beds of ten little boys and ten little girls, the children's movements were registered and transcribed on a kind of seismograph. For three hundred nights Dr. Renshaw's assistants watched the machines installed at the bedsides and were able to observe that apparatuses registering movements were inactive, or almost so, during the periods of fifteen nights when the children had not visited the cinema. When the same children were sent to the motion pictures, the apparatuses registered 26 % more agitation among the boys and 14 % more among the girls, and it was observed that the agitation was strongest during the early part of the night, that is, when, ordinarily, sleep is soundest and most restoring.

It was also noted that ordinary amusements for the children did not cause the agitation remarked after visits to the pictures. Children who were taken for rides in automobiles even late at night in the town slept soundly.

Dr. Renshaw was not able to determine with any degree of precision the effect of horrific films, the effect being different according to the child or young persons, and often manifesting itself in unforeseen ways, but his conclusion regarding the effect of the cinema on sleep is that children ought not to frequent motion pictures too much, and ought only to see films suited to their mentality.

Moreover, it is universally recognized by persons who are interested in health and hygiene that the abuse of motion pictures is prejudicial to children and young persons. To remain shut up for hours on end in the dark is not good for young people, who require open air and sport to attain a healthy development.

Let us say a word about child actors who, fortunately, are not numerous in the films. Their work is regulated in different countries by different

special laws and regulations, or by the ordinary legislation on minors. We must take every care to see that these laws and regulations are observed and faithfully carried out.

MORAL PROTECTION. — The question of the moral effect of the cinema on children has often been discussed and treated. The influence of cinema projections on young persons and on the masses is recognized by everyone since such projections form a part of our social life like other forms of amusement, if indeed they do not occupy the first place among popular entertainments. Often enough alas ! the motion picture has attracted young people away from the quiet delights of peaceful, domestic life.

As a result of various symposia and inquiries, it has been possible to determine with considerable exactness the role played by the motion picture in the life of young people.

The International Institute of Educational Cinematography of the League of Nations organized a symposium among the children of different countries to learn : when and how young people frequent the cinema ?

According to the returns of this symposium, in Italy, children's taste in films improves as they increase in age ; boys go to the pictures more often than girls, the children of intellectual workers more frequently than those of manual workers ; working class children prefer evening projections and those given on holidays ; young people prefer to visit the moving pictures during the week, while very young children like to go on Sundays and holidays. In the small centres, it is chiefly the boys who attend the cinemas in the evenings, while in the towns and cities it is the girls. In working class centres, children are more frequently accompanied by their parents than in professional circles.

As a result of a questionnaire placed before 21,280 children of the elementary schools in England, the following statistics were arrived at. All children like cow-boy pictures, especially the younger children. War films and films of adventure are appreciated by boys of from 8 to 14. Girls do not not like war films. Detective and gangster pictures are very popular among boys, while comedies, and farces are not much liked by children of from 11 to 14. There is not much appreciation for documentary films among children. Sentimental and love stories please girls of from 11 to 14, but the boys do not like them.

The replies were given orally, and the examiners think that there was a certain amount of pretence

and human respect to be discounted in them. What is remarkable is that the moral element does not seem to make any effect on the children, who imitate in their games the things they have witnessed on the screen.

Another inquiry made on a small scale is worth noticing. It was undertaken by the director of a school for backward children, and the medium of self-revelation used was drawing. The children were allowed to draw freely every day. On Fridays, 75 % of the drawings reflected the visit to the moving pictures made by the children on the day before (the children were taken by their parents to the pictures every Thursday). Among the drawings and the accompanying comment, it was observed that war films did not produce the results in children which might have been expected. Despite the fear of death and the sight or suffering the children in general appeared to have reasoned this way : " This is fine : people are fighting ", or " It is splendid to watch men firing guns, One sees who is the stronger ".

Bandit, gangster and cow-boys pictures were much appreciated, and had a bad influence on these young boys. " They're fighting, that's fun ; they're shooting off revolvers ; fine ! "

The importance of the cinema in children's lives has been the inspiration of numerous efforts towards the preparation of special recreational films for young people such as have long been in request. Films of this kind have been made in the United States, France, Great-Britain, Italy, Greece, Sweden, etc. Argentine possesses picture houses specially constructed for children, and prizes are offered for the best films for young people. There have been a number of admirable attempts along these lines in various parts of the world. Thus we have seen matinées and evening performances for children only, Thursday and Saturday matinées for children, week-end pictures for children, special halls catering to young people, and family shows which have obtained considerable success.

The Committee for the Protection of Children attached to the League of Nations has always taken the cinema into great consideration and has urged the preparation of programmes of mixed variety turns and films. During the ninth session of the Committee in March 1933, the question of recreational, medical, hygienic and folklore films was debated and Monsieur Lumière's suggestion that animated cartoons should be used in preparing children's films was regarded as particularly interesting.

With regard to the effect of the cinema of differ-

ent mentalities, it has been pointed out that in the Orient, in certain regions of Central America, and the Southern States of the United States, pictures showing superficial aspects of luxury lives constitute a regular poison for young people. On the other hand, a complaint comes from Australia that on the Thursday matinées when children form 80 % of the audience, too many triangular love story films are projected.

The International Cinema Congress which the I. I. E. C. has organized will certainly help to define the role of the film in the formation of children's and young peoples characters, and the means to employ for an efficacious use of the motion picture in this connection.

CENSORSHIP. — The task of cinema censorship is of the greatest importance for the protection of children. It provides a safeguard for the chief principles.

The Rome Cinema Institute is preparing a work which will allow us to grasp the present state of the censorship, and we hope that it will also place in due relief the position occupied at the present time by women on censorship commissions, as well as the position she ought to occupy. The Rome conference of the Women's International Council of October 1931 pointed out that women were not sufficiently represented on these commissions.

The desirability of an international understanding on the principles of censorship and their application is voiced on many sides. As things stand at present, each country has its own legislation and regulations. In most countries an official censorship of two kinds is in force. Some films are neither stated to be suitable or unsuitable for children. Other states do not admit children of less than six into cinemas from hygienic motives. Others again only admit them, unless accompanied, at ages varying from 13 to 18.

In countries where there is no official censorship, the control is carried out by powerful private organizations as, for instance in the United States of America where agreement on the matter is arrived at through work of committees composed of women and men and representatives of the film producers.

Taken as a whole, however, the cinema censorship is often inadequate or ineffective. This is why women ought to make an effort to extend their influence in this domain.

THE FILM AND CHILDREN. — We must not omit to mention in bringing this note to an end a whole

cinema programme of films dealing with childhood and youth which shows how much public attention has been turned in this direction.

Among numerous films, we will mention a few : a series by the LUCE Institute in Italy illustrates the care of a child from its birth until the time of its admission to a technical or trade school.

"L'Eveil de la Préparation chez les tout petits" is a film on very young children by Dr. Harold Hessel of the University of Yale. "The Future Mother" and "Two Methods of Nursing Children" by Jean Benoit-Lévy are interesting French films on these subjects.

In England, the *National Baby Week Council* and the *National Safety First Association* on cleanliness, sight preservation, measures for avoiding diphtheria are all pictures which were projected during various *Health Weeks*. These pictures were all projected in all the Leeds cinemas during the Health Week organized there in October 1932.

There is another side of the question which we have not the space to examine properly. This is a matter which is well dealt with in certain German films : maternity and illegitimate births. The German film *Motherhood* has been shown in the college of Madrid as part of an anti-abortion propaganda campaign.

Another side of the question is touched on by the review *Securitas*, of Milan, and deals with the accidents to which children are liable. The question of the projection of pictures in crowded and restricted conditions such as toy shops public gardens etc is examined. It would be interesting to make women acquainted with efforts of this kind.

All countries are concerning themselves today with these important questions affecting the protection and safety of children and young people. In order to establish an effective collaboration, would it not be advisable to centralize more and more the results of various experiments and efforts ? Thus we could have a centralized knowledge of films to choose or reject, official or private efforts worthy of being pointed out, suggestion and observations of all kinds. In this matter, the proposals and ideas set forth in the recommendations adopted by the commission for cinema and broadcasting of the International Women's Council would be more rapidly given practical effect. The motion voted at that conference held in Rome in October 1931 under the auspices of the I. I. E. C. ran as follows :

"The conference demands that seats placed too near to the screen and therefore constituting a rea[

danger for children's eyesight should be forbidden for children, and that the lighting should be sufficient during the projections to permit of some surveillance. The conference demands that the National Councils should take action as soon as possible to regulate the employment of young persons in cinema studios and to prevent the life and safety or the actors being endangered.

"Seeing that the majority of countries have found it necessary to adopt a censorship of two kinds, it is desirable to impress on the other countries that they institute either a pre-view censorship or one of a character to allow films to be refused licenses if undesirable.

"The conference hopes that qualified and competent women will have seats on the censorship commissions.

"The conference is of the opinion that the censorship should be extended to all advertising mat-

ter titles and variety turns interspersed among moving pictures.

"The cinema exercises a great influence on individuals and especially on children, and the conference notes with satisfaction that several governments are giving more and more attention to this question of the cinema, a fact likely to assist in the formation of a public opinion which is calculated to make itself felt on individuals, families and on society generally.

"The conference insists that an effort be made throughout the world to secure the prohibition of all kinds of detective films inciting to cruelty crime or immorality, as well as everything which is likely to harm the cause of civilization and good understanding between peoples.

The conference makes a strong appeal to publishers, producers and exhibitors to keep a high standard for their films.

THE DOCUMENTARY VALUE OF THE CINEMA

BY

Luis Gomez Mesa,

MEMBER OF THE SPANISH COMMITTEE OF THE I. I. C. E.

BEFORE analyzing this subject in its various aspects, let us look at it from a general point of view.

As a basic principle, it may be asserted that all good films are documentary. From the time of its invention by the brothers Lumière, the cinema has had documentary aims.

Rather than the definition "moving photographs", we think this more suitable: photographic documents, simple and convincing by their persuasive and diffusive character.

The films seen in Paris on December 28, 1895 — the first appearance in the world of this new and extraordinary type of spectacle — were living documents that required nothing but a visual effort. For example, the arrival of a train at Lyons, the departure of a steamer from the port of Marseilles. . . . In 1895, these things caused genuine astonishment. There was, it is true an annoying strain to the eye sight, but no-one noticed it. All attention was engaged with the fact that the photographs on the simple white sheet, were, in all their movements and authenticity, real persons and things.

The simple white sheet was in time perfected by science — The flickering of the pictures was eliminated.

As the years passed, the progress increased. From a contemplative spectacle, exclusively visual, the cinema became aural.

At the end of 1928, the microphone, register of voices and sounds, and the camera, true reflector of images, were on the way to work in perfect union.

The addition of speaking, sound and musical accompaniment has greatly improved the film.

After its union with the microphone, the cinema was no longer the art of photography in movement, with the necessity of printed explanations in the form of sub-titles. The film now spoke with its own words. The cinema has thus naturally gained a greater power of representing actual documentary sights and sounds.

If the world is incidentally for the cinema, the cinema is of the world of life, reality and actuality, which are continually renewing themselves. Without the cinema, the world would continue to exist. It would not stop its movement for a second. The cinema, on the other hand could not exist if it did not reflect the life of the world. It is its natural function to serve the world entirely, fully and without partiality or deception.

In no aspect of the cinema are these qualities more defined than in the documentary film.

Unfortunately, these objects are not often reached in a satisfactory manner and documentary films often present an untrue picture of life, either for commercial reasons of gain or from necessity or ignorance.

Cinema and Geographic Documentation.

It is precisely in geographic "documentaries" that the inaccuracies we have mentioned most often occur.

The term geography must here be interpreted in its fullest meaning.

The geographical film is one which describes

es the physical characteristics of a people, the land these people inhabit, the climate and the racial characteristics, habits and costumes of the population.

National films are geographical unless they are lacking in traditions and reality.

The French panoramic films of art and nature are, besides being artistic and propagandist, also geographical.

So is the German film for the same reasons, and so indeed are all the others from the American to the Italian, the Russian, the English and the Spanish right down to the smallest and most insignificant examples.

All films are geographical when they are made in the country and draw their vitality from the territory and landscape of the place where taken. Not so, when they are studio-made, and attempts are carried out to imitate the characteristics and peculiarities of nature. In this case, the truth is made to lose its value willy-nilly. Films purporting to have been made in Spain will betray their foreign studio origin through a number of particulars of tone, colour and detail. If art can hope to, and sometimes does, show itself superior to reality it cannot do the same thing with nature.

The marvellous landscape of Ronda in the province of Malaga — we refer to Spain because it is the country we know best — with its deep chasm crossed by bridges, one Roman, one Moorish and the third made of great superimposed arches is not to be copied or reproduced. The same may be said of Cuenca, the enchanted city cut out of the rock, and the same for majestic Montserrat near Barcelona, and for Pajares or Covadonga in Asturias, or the magic orchards of Valencia, unique in fertility and beauty, or the vast impressive plain of Castille with its fields of grain swaying in the breeze at harvest-time, a plain burnt by the sun and broken up by living wounds from the plough at sowing time: these and many other places favoured by nature.

What scenographer, expert as he may be, can hope to reproduce such natural scenes? He can copy them, but never equal them.

It is only by means of poetry, literature and perhaps painting — stylistic creators of sensibility and temperament — and not photographic reality, that man is permitted to conquer nature, improving her aspects in suggestive forms. Art can recreate nature after having lived in contemplation of it. Only art can correct and improve nature with fantasy and spirit.

Scenography is a variant of painting that imitates reality and nature, it is an inferior kind of painting which may be called "photographic" on account of its excessive objectivity. It is useless to want to use it in cinematography and give it the value of geographical documentation. It will always be inefficacious because it is a falsification. Though the man who handles it may be able and intelligent, it can only be looked upon as an artifice, or as a well made copy of something it is better to admire at first hand.

The imitative talent of the decorators of the cinema studios breaks down in the case of films that propose to be really documentary. We must in these cases reproduce what is the work of nature and not the work of man.

The use of tricks and mystifications in films of Polar or African travel and exploration damages the authentic value of such expeditions, rendering them mere artifices. There is a deliberate intent to falsify reality in order to obtain sensational effects, as in the case of pseudo-scientific romances written by authors who follow the most extravagant flights of their fancy. From films of this kind we learn nothing. Their role is merely to entertain and divert us. They do not succeed in instructing us or increasing our culture. They are outside the domain of the documentary film and form an exception.

Geographical documentation in the cinema has nothing to do at any time with artifice or studio tricks. It is, on the contrary, a reflex of reality.

The sole method for obtaining geographical "documentaries" is to transport camera and microphone to the places it is desired to reproduce.

In spite of the numbers of volcanoes,

rivers, cascades, lakes, hills, and plains in the five continents which have been shown on the cinema screens of the world in constant succession in a stream of documentary films, nature is always ready to be generous to those who approach her with the object of making known the story of her loveliness.

The subjects and sites of geographic documentary pictures cannot be said to be exhausted, nor do they lose their effect if repeated. They can always appear new if presented in an artistic nanner and in cultural and recreational forms. All depends on the film director.

Every country ought to take advantage of the documentary cinema for the propaganda of its life and natural beauties, without having recourse to simulation and artifice to illustrate its geography and natural life.

Cinema and Geo- Besides the necessity of
graphy. keeping strictly to geographical truths, it is also logical to try not to falsify the particular characteristics of landscapes and country scenes which one seeks to illustrate. If we respect the features and peculiarities of all the races of Europe in our geographical "documentaries", we shall be doing a genuine ethnographical work.

No document is superior to the cinema for showing the varieties of race, but it is necessary that every national film be a faithful reflection of the country it purports to illustrate.

When we have to deal with popularizations of exotic travel pictures such as *Nanuk*, *Moana* and *Taboo*, extreme and intelligent care is required in order to obtain sincere works of ethnographical content. Otherwise we shall obtain the usual "fakes" of "typical" Orientals or Europeans disguised as natives of the Orient — all naturally without the least "documentary" value.

Cinema and Folk With the development
Lore. of the sound and talking film, music — which had been an element apart, isolated from the motion picture — took its place on the margin of the film

on the sound track. In the old days, when we were witnessing a scene of dances or singing which required a musical comment, the orchestra was generally silent, just when it was most needed. There is no chance of this today; sound and image are allied in a perfect synchronization and are manifested contemporaneously.

How useful all this is in the presentation of folk lore films it would be foolish to ignore. The cinema represents the best propaganda means of the folk lore of a country that we have.

The Cinema and the Documentation of the Life of other Nations.

When we have admitted the worth of the cinema from the point of view of geographical documentation, giving us a more vivid knowledge of the territory, inhabitants and physical characteristics of a country as compared with other countries, there is another aspect of the subject to be considered.

The point requires careful consideration because it is a delicate one.

We refer to the cinema used as a documenting means, but not in the national sphere. When the producers of a country produce films on the customs and manners of other nations without a proper knowledge of them, and without visiting and studying them properly, making their pictures from fantasy and imagination, though the intentions may be good, it will be difficult to obtain results that are not full of errors.

When it has been decided to make a film on a certain country, it is necessary to go to that country and work in collaboration with the inhabitants. It will not do to work in the studio where it may be easy to imitate — from desert scenes to representations of flora and marine fauna lent by some aquarium — because such attempts though permissible in a commercial sense, are out of place when it comes to offending the prestige and good sense of a nation by deforming the facts of its physical and geographical life. There have been only too many cases lately of diplomatic protests caused by films con-

sidered by some nation as offensive to its dignity and false to life.

If the cinema is national, it is not likely to contain documentary errors, because it is reproducing truth and nature more or less improved by art. The question becomes different when we come to consider good international documentary pictures.

Can this fact be modified and changed?

Rather than alterations and cuts as the results of diplomatic protests, it would be better to see that no reason for such protests was given. Pressure and persuasion should be brought to bear on the producing firms to make them take the necessary care when they are making pictures in foreign surroundings, even if the pictures do not intend to present a strictly ethnographical character.

In this way, besides showing a complete understanding of the expression *cinema and documentation of the life of other peoples*, protests and complaints from other nations

would be avoided, and these nations would take an interest in pictures which truthfully illustrated their life.

Cinema and Peace. Looking at the cinema as a living document, which is necessary for a better reciprocal understanding between the nations, we should ask those engaged in producing films of this kind never to forget the possibilities of such pictures for spreading ideas of peace.

The cinema must always remain a means of diffusing the typical characteristics of all countries in a form of art and truth, both in the case of national and international films. Art and Truth.

These are the essential aspects of the motion picture, that is : a faithful, direct, precise reflection of reality and nature, improved and refined by the spiritual qualities of grace and beauty.

MUSIC AND FILM

BY

Dr. Kurt London.

THE music used for accompanying films has always been a criterion of the grade of advancement of the cinema. If we look into its evolution, we shall be considering a question not of interest to music only, but one which closely concerns the motion picture. Music has been and is still today — especially for the sound film — an essential element of the cinema spectacle, but this has not always been properly understood, and indeed only too often has it been neglected.

The Origins of Musical Accompaniment. The origin of musical accompaniment has nothing very extraordinary about it. The earliest forms of accompaniment arose from the necessity of smothering the deafening rattle that was taking place in absolute darkness. When SKLADONOWSKY and MESSTER in Germany, the brothers LUMIÈRE in France and Edison in the United States gave their first public projections, the film did not enjoy that consideration which it has today. In the early days, cinema shows were given in second-rate halls with comfort and fittings as primitive as the pictures themselves. At this epoch, the musical accompaniment was introduced, not in consideration of artistic demands but to make the show more acceptable to the public. The great thing was to drown the horrible noise of the machinery which crackled like a machine gun. At that time, no insulating wall material had been thought of to damp the noise; there were no projection cabins, and the operator and the public were in the same room. The

task of the music was to suffocate a disagreeable noise with a less disagreeable one.

The result was that recourse was had to musical instruments which produced very loud sounds, such as pianos or piano-organs. There is no doubt that if we examine the motives which operated for the choice of certain types and examples of music, we shall find what came to be later on, the psychological reasons leading to traces of an aesthetic criterion in musical accompaniment. It is not without interest to note that the fondness for mechanical music which characterized the early days of the motion picture is to be seen today in another form.

In the earliest period then, we had mechanical music accompaniments. It was only later, when the cinema began to find itself, that real blood and flesh musicians were introduced in the shape of pianists. When the pianist had talent, he abandoned himself to fantasies and improvisations, but, generally speaking, the music had still no connection with the picture.

One day a pianist had the idea of using for the musical accompaniment of a film on the life of a criminal a *leit motiv* in the form of an air then very popular in Germany: *Man steigt nach*. This was perhaps a decisive day in the history of cinema music, which has continued since then to become more and more sure of its task of commenting the film action with a more studied rhythmic sense and a greater appreciation of the psychology of the picture.

The artistic movement which arose from this idea increased in proportion to the im-

proved conditions of the cinema halls and their growing standard of luxury and comfort. Orchestras replaced pianists. Then came the notion of special musical adaptations for films. This was done, for the first time in Germany shortly after the conclusion of the World War, for a film on Wagner, and for the first edition of *The Student of Prague*. The merit of this notion belongs to an Italian, Dr. Giuseppe Becce, then working in Berlin. He understood all the advantages that could be derived from the system. It was he who built up the first *film libraries* or *cinétheques*, though the word had a different meaning then to that given it now. Similar *cinétheques* were later on established in all countries, opening up new prospects for cinema music.

In Becce's use of the term, the *cinétheque* was a collection of musical excerpts lasting from two to three minutes and capable, owing to their great variety, of being adapted to all kinds of sentiments and situations. Cataloguing them in given groups permitted an orchestra director to get together rapidly all the requisite musical pieces for his accompaniment. Naturally, these adaptations required considerable musical taste and culture. This is why some of the good musical commentaries of this period were even considered as regular works of art, though they were nothing but able compilations.

Owing to reasons of a financial rather than a technical nature, very few original scores were written for silent pictures. In any case, compilations of the kind referred to had certainly the merit of doing honour to good music and of spreading a taste for classical music among frequenters of films.

Sound Films. When the sound film appeared, the musical world imagined that the motion picture would need it still more. It did not foresee the progress and developments in the mechanical reproduction of music. When it perceived what had happened, thousands of musicians were already walking the streets. Sound film music really required only a limited number of

musicians, and the registered music attached to the pictures went round the world in limitless copies. Besides clearing the musicians out of the motion picture halls, the sound film was accused of causing the crisis in the theatre. The sound film output offered, moreover, limited opportunities to the musicians.

We can distinguish three periods in the history of the sound film. In the first period, care was taken to reproduce all possible and imaginable sounds. Every door had to be heard closing, each step of a person was made to resound. Then came the period when speech predominated to the point of tiring the public. Then came the *chanson*, the theme song and melody which swept over the cinema world like an epidemic. There were commercial reasons for this, for the public which did not yet understand what the real spirit of the sound film was, welcomed the song as an agreeable novelty.

What resulted was that the song very soon destroyed in a systematic way the story of every film. Drama became melodrama; comedy a mixture of songs and dances. The song ended by making a bastard thing of the sound film, which was offered as a new form of art. The most carefully written scenarios were hacked to pieces to make room for songs, and the inflation of the song brought it about that one was no longer able, from the artistic point of view, to distinguish what musical accompaniment for films ought to be. There were some exceptions to this in films such as René Clair's *Sous les Toits de Paris* or Friedrich Holländer's *Einbrecher*, where some attempt was made to prevent music and songs from interfering with the dramatic action.

During the reign of the *chanson*, or theme song, the real individual worth of some motion pictures was destroyed. A very frivolous conception of art dominated, and it was sought to produce only pictures likely to attract the generality of the public in every country. This period is now in decline; the opportunism of the producers having damaged them. They have to surrender

before the evidence ; a film without a personal character is condemned to failure for the simple reason that, artistically speaking, the lack of character reveals itself as a lack of style.

The Future of the Musical Film.

No nation has dared to make experiments in film music in such a way as to prepare the path for the musical motion picture. The attempts of *Hindemith*, *Milhaud* and *Dessau* made at Baden Baden in 1929 on the occasion of the ceremonies in connection with the origin of chamber music have almost been forgotten. In France, the few advanced school films of this type produced have not made their way from the circle of local life. If we look at the balance sheet of four years of sound film work, we shall find that very few of the motives used from the cinema musical compositions of *Rathaus*, *Dessau*, *Zeller*, *Eisler*, *Milhaud* and *Becce* have lived. It is the oppressive and destructive character of the song which has blocked the way for the musical film.

What are the possibilities for the future ? We must remember that the general economic crisis has only influenced the cinema crisis in a relative way. The cinema crisis is a matter of film subjects or stories.

In all countries, good films still enjoy success, and the spectator, even if in restricted financial circumstances, goes to the pictures when he is sure of finding a good film. It is an error to assert that the public only likes banalities. Now that we are mentioning the question of stories for films, it will be

opportune to consider the matter of the musical score.

This aspect of the cinema is revealed to us in a different light today. Nowadays we have imposed the forms of the prose drama on the theatrical motion picture, and the music required is only occasional music, *musique de scène* with no connection, generally, with the action of the piece. It is only rarely that we find melodic and rhythmic motives springing from the action and connected with it as in the attempts of *René Clair*.

The sound film ought, on the contrary, to be quite distinct from the theatre in the matter of utilizing sounds. As we have it today, it is too poor in music. Producers ought to think of this matter and, with the aid of the composers, seek for methods and ways to enrich sound film with new rhythms.

The decadence of cinema music is not only deplorable from the artistic point of view, but also from the psychological. The film ought not to be an inflated thing, the spiritual poverty of which is hidden under pretences of art. We must not forget that the collapse of film music may lead to an irremediable collapse in the spiritual value of the film.

Cinema music is one of the chief concerns of those who want to make of the motion picture a real popular art. This is a fact which should not be forgotten when we come to that necessary revision and reorganization of the world production which is imposed by the pressure of economic necessities.

CINEMA AND MUSIC

BY

Alfredo Miralles,

CINEMA CRITIC OF THE "A.B.C." OF MADRID.

FOR those of us who, without being old, are no longer very young, the words at the head of this article have the power to send our memories back over a number of years. Let us close our eyes and live again the happy years of youth and we shall see a picture of the early days of the cinema. We shall see pass before our eyes the various stages of its brief and triumphal existence, and in a rapid succession of images, we shall be able to appreciate its early defects, the improvements made, its recreative possibilities, its industrial importance, and its vast possibilities as a means for spreading culture. It is on this last point and on one particular detail of it that we propose to fix our attention; musical culture.

When films only lasted a few minutes, and the cinema was merely a marvellous new invention for the world, no one thought of it in any other light, but when it fell into the hands of business men who made a theatrical show of it, the necessity of some other element to complete it was felt. It was called the silent art, and so it was in truth. Only the action, the movement were perceptible to the public, and since not all the actors were sufficiently expressive, nor all the spectators endowed with the necessary faculties of understanding, many parts of many pictures remained incomprehensible. Commentators first of all came to remedy this state of things, and they in turn were substituted by sub-titles, and printed running comment. Neither were sufficient for the projection.

What was lacking was sound and a formula was found, the musical accompaniment. To begin with, a piano was used. Under the rectangle of the screen, an electric lamp threw a yellowish glare on the five lines of the musical page. While the silver screen reproduced a beautiful landscape or, our eyes contemplated a boat on the sea, or the various phases of an idyll under the moon, which as a matter of fact, was a sun on a dark blue background, a nostalgic melody touched our sensibilities much more intensely than the most eloquent of dialogues, a melody in waltz time, which sometimes seemed as if it would never end, because, when the notes of the written music ceased, the pianist's hands improvised a fresh theme that was the expression of his feelings and was never to be repeated perhaps. The musician's agile fingers drew notes from the ivory keyboard which seemed to show its white teeth in a cynical smile. Time passed. Exhibitors began to improve the entertainment and since, apart from the varying quality of the films, nothing could be done with the projection cabin, attention was turned to the music. Sextets came into use, and later even more numerous groups of musicians. In a word, the musical side began to be taken more seriously. Ordinary programmes, put together anyhow, no longer sufficed. A selection of musical motives adapted to the film and its events was demanded and prepared. At that time, whole scores were not played, but disconnected pieces, chosen for each different scene or sit-

uation according to instructions from the exhibitor or cinema owner who had seen the picture a number of times. Then came mechanical music, the big mechanical orchestra, the horrible mechanical organ and the human voice singing behind the screen a song which one of the leading characters in the piece might be supposed to be singing at a given moment. Attempts were made, sometimes most successfully, to link the cinema with the gramophone. Then the sound film came into being, and later the hundred percent talkie which arose from a desire to popularize the invention at once. Experience soon showed that the spoken word in the *cinema* has not the same meaning as in the *theatre*. In the latter case, its value is absolute, since it is a means of expression. Together with the cinema apparatus on the other hand, the means of expression of which is the image or picture, it has only a relative value, which is purely phonetic. It is one more sound among other sounds, which provide a background for the action, and as such should be used with caution and great artistic sense. The exhibitors, convinced of this by means of a series of successes and failures, which opened the way to a just appreciation of the proper policy to follow for the future, took a middle road, that happy average way which often brings fortune and success, as it did in this case. Music today has such an importance for the cinema that it is not enough to adapt music for it. Today special scores are written for films and, the loud speaker gives us pieces of classical music or music hall airs. There is something for all tastes.

There are two kinds of theatres ; one which requires the aid of music ; another which has no need of it because its appeal lies in the dialogue. This is not the case with motion picture. In the film, in spite of all the concessions we may make to the word, there are always moments when the appeal of the orchestra or the piano, or the gramophone or the radio cannot be dispensed with. This musical intervention is required to illustrate a silent landscape view ; to give character to a cer-

tain setting or scene or a dialogue. Even admitting that it is not necessary, music never disturbs. This is because cinema and music have a common denominator : rhythm, without which neither good or even mediocre films or melodies could exist. After the radio, the cinema, from the point of view of sound, has contributed to increase the passion for music, and to form a basis of musical culture among the masses, even if only a modest one. There must always be a rather high percentage of persons ignorant of music among the masses, owing to the lack of opportunity to hear and understand the charm of Euterpe.

The public crowds to a cinema hall with the idea of seeing a film. It is directed to that particular place through press publicity, or its own predilection for a certain artist or artists. Sometimes it is a passage in the film which allows the spectator to hear a fine piece of music, on other occasions, it is something added to supplement the main item in the programme some "short" which provides a musical novelty. Bit by bit, and insensibly, music is becoming more popular among the public. It often happens that we see people humming or whistling a motive without knowing from what opera or musical score it is taken. The cinema has taught them pieces from Chopin, Mozart and Liszt, insinuating them into their ears without their own knowledge almost ; the pictured image on the screen taking away that aridity which pure music has for the neophyte.

We have gone further than this : we have come to the production of films which are commonly called musical novelties. Thus the symphonies of Beethoven, the preludes of Wagner are given, not as backgrounds for a scene reconstructing episodes from the life of a celebrated composer, or to provide subjects, but as regular spectacles and shows in themselves. It is the orchestra on the screen, nothing else.

A moment's silence, the conductor's baton is raised. Then the sounds from the loud speaker insinuate themselves among the listeners, and the orchestra is playing. The profane listener comes gradually to accustom

himself to the sounds of musical instruments which he did not know : the deep sound of the bassoon, the laments of the violoncello, the solemn music of the trumpets, the strident tones of the trombones, the nasal sound of the clarinets, the grave voice of the double bass, the pastoral sweetness of the oboe, the warbling of the flutes... and above all this marvellous ensemble the thrilling notes of the violins which sing triumphantly or whisper softly when muted.

The success of films of this kind is encouraging for those who prepare and produce them. Any subject is good for the public : the thing is to choose the most suitable means of communication. For the diffusion of musical culture, the facts have unquestionably demonstrated that there is no better system

than the cinema, which teaches while entertaining.

In Spanish cinemas, — and no doubt the same thing happens in the cinemas of other countries — the programmes are generally divided into two parts. In the second part, the most important film on the programme is given. The first part of the show is made up of «shorts», news-reels, animate cartoons, documentaries, etc. In the name of good taste, and for the sake of a greater refinement and sensibility among the masses, I should like to suggest that among these pictures a place should be found for films which can carry to the farthest corners of the earth fragments of good music, which is not only a pleasure for the senses, but a spiritual nutriment for the elect.

TECHNICAL PROBLEMS OF EDUCATIONAL CINEMATOGRAPHY

BY

Dr. Ernest Rüst,

ZÜRICH.

THE universal diffusion of educational films is impeded not merely by pedagogic and organizing difficulties, but also by a number of technical obstacles. Whether the film is suitable and effective for teaching purposes depends largely on satisfactory technical conditions, and also on accurate and methodical production, accompanied by such organization as will ensure that the film is properly used and properly supplied. Technical questions arise in connection both with the film and with the projection machinery, both with the screen and with the darkening of the hall.

The Film. Matters of special technical importance in connection with the film are the material on which the image is printed, the dimensions, the system of perforation, and the perfection of the photographic image.

(a) MATERIAL. — The modern film is made either of celluloid (cellulose nitrate with camphor : nitrate film), or of acetyl cellulose (cellulose acetate : acetate film), or of cellophane (cellulose : ozaphane film). These different materials resemble one another inasmuch as they can readily be converted into thin, pliable ribbons, transparent as glass ; but there are fundamental differences in make up.

The nitrate film possesses a greater degree of resistance to pull, and retains its flexibility longer. It is, however, highly inflammable,

burning with a powerful flame, and as soon as it is heated to a given temperature, even if no air is admitted, it decomposes, giving off poisonous gases (nitrogen dioxide, hydrocyanic acid) and evil-smelling vapours which, when mixed with air, are liable to produce a violent explosion. Notwithstanding these bad qualities, the nitrate film, on account of its resistance and flexibility, is used almost exclusively as the material for normal 35 mm. films.

The acetate film actually begins to decompose with the formation of bubbles on the surface, and liquifies at approximately the same temperature as the nitrate film, but without giving off any particularly poisonous gases. It neither ignites nor burns easily. Held horizontally and lit with a match, it generally goes out of its own accord. Hence this kind of film is less dangerous in case of fire than a light cotton fabric. On the other hand, it is less resistant to strain than the nitrate film, and it hardens if kept in a dry place. For these reasons, it cannot long resist the pull of the normal projection machinery, and as in addition, it is more expensive, it has not yet been possible, for economic reasons, to substitute this film for the nitrate in the case of normal dimensions. As a *reduced size film*, and so subjected to less mechanical strain, it lasts as long as a normal film lasts with normal machinery. Since the producers of sub-standard films have under taken to use only safety films, that is to say, materials

which are not easily inflammable or combustible, most small-sized films are now printed on acetyl cellulose emulsion.

The *ozaphane film* has only lately been introduced for practical use. This also is a safety film. It may be roughly described as a kind of transparent cotton, possessing substantially the qualities of that fabric. It provides an extremely fine ribbon, about 0.07 mm. thick, but sufficiently solid and lasting. In the *ozaphane film* the image is not printed on a layer of gelatine and silver bromide. Smeared on the film; the image, without any silver grains, is actually inside the layer of cellulose. In the *cellophane ribbon*, impregnated with a *diazo* composition, sensitive to light, the image, after copying, is developed with the aid of a substance that fixes the colouring matter. It costs very little to produce ribbons for *ozaphane* pictures, if they are made in large quantities. As the film is very thin, considerable lengths can be rolled up in a small space. If the projection is to be perfect, the machines in use to day require an alteration in the projection aperture. So far, however, too few experiments have been made in regard to the perfecting of pictures on *ozaphane* films (control of shading) and their permanence, for them to be recommended for school purposes, seeing that it is not the business of the school to serve as a field of experiment in this direction.

Owing to the chemical nature of the nitrate film, *normal films* have to be projected with special safety precautions against fire, which means that the projection machinery has to be housed in a fire-proof box, or that only projection machines with proportionately moderated beams of light can be employed (see "Projection Machines"). The *reduced size film*, which is manufactured as a safety film, is not subject to these restrictions, and can therefore be used without special precaution on school premises. In Germany, special detailed regulations have been issued for the examination of safety films. A *safety film*, after proper washing, should not, when exposed to the dry air, ignite at a temperature of less than 300 C., and a strip of such film

16 mm. wide and 30 cm. long should not take less than 45 seconds to burn in a horizontal position; a similar strip less than 0.08 mm thick should not take less than 30 seconds.

At this Congress it should be definitely ascertained what countries have accepted the above definition of safety film, which has already been agreed upon by the Eighth International Congress on Scientific and Applied Photography, with the recommendation that it be speedily put into effect.

It would be desirable to find out how this can best be done, and at the same time to arrange for the collection of all exclusively technical definitions relating to the production of reduced size for schools.

SIZE. — Whereas *normal film* is subject to international regulations, and hitherto has generally been employed only with a field measuring 18 by 24 mm., there are some four types of *reduced size film* in use: the half-normal, 17.5 mm. wide (Pathé-Rural, with a field measuring 8 1/2 by 18 mm.), the Koda 16-mm. size (field 7.6 by 10.5 mm.), the Pathé-Baby 9.5 mm. size (a film of small dimensions with a field measuring 6.5 by 8.5 mm.), and the Kodak 8 mm. size (field 3.5 by 5 mm.).

The smaller the dimensions, that is to say, the less the width of the field, the smaller is the quantity of film required for the entire production, and consequently the lower is the cost. For home performances, at which only a few people are present, sitting close to a small screen, excellent projections can be obtained even with films of the smallest dimensions; but in educational performances, where size, luminosity, and clearness are specific requirements, the dimensions of the film cannot fall below certain limits. For a average school hall, the images should be 1.5 metres wide and the illumination of the screen should be at least 35 international light-units (40 Hefner Lux). The perfection of the image should be such as to show up clearly the minutest details of the subject.

Getting the image the right size depends primarily on the fineness of the grain of the emulsion and on the intensity of the beam

of rays that can be directed through the field without risk of damage to the film.

Such progress has been made in recent years, both in the technique of projecting reduced size films and in regard to incandescent lamps, objectives for projection, the proper direction of the luminous beam from the projector and cooling by fans, that it is now possible to direct through a 9.5 field a beam sufficient to meet the aforesaid requirements. Greater difficulties are presented by the fineness of the grain of the photographic emulsion and the reproduction of details. It is difficult to foresee whether any *practical* progress will be made in connection with the *fineness of the grain* in the relatively near future. Bauer and Imhof (1) have recently given a satisfactory demonstration of the possibility of securing negatives with an extremely fine-grained emulsion. For various technical and economic reasons, which we need not discuss here, there is still a long way to go before this process can be practically employed in regard to film negatives and the production of positives; and there is therefore not the remotest prospect of obtaining, in any reasonably near future, layers of finer grain than we now possess.

The density of the emulsion, which, in projecting a film, produces the disagreeable effect of spotting, is proportionate to the extent to which the photograph is magnified on the screen, and to the distance between the screen and the spectators. This aspect of the perfection of the images which provides a basis for the choice of the format is obtained by a suitable development, and depends on the density of the grain of the emulsion and other and various other factors. For reduced size film, the subject is considerably diminished in size. Consequently, the minute details are brought so close together that, owing to the limited capacity of development, they cannot be separated again, even after several enlargements. The smaller the di-

mensions, the more easily are the details lost. Unfortunately, no experiment worthy of mention has been made in the direction of correcting the phenomenon of spotting and restoring to the details their proper value, and therefore we are bound to judge by practical results. The use of the reduced 16 mm. film in school instruction has shown that, provided the photograph is well executed from the technical standpoint, the details are adequately reproduced and that, even for spectators only 3 metres away from the screen speckling is still kept within supportable limits (with an image 1.5 metres wide). If a machine is available for projecting with a strong light, and if the nearest spectator can be not less than 4 metres from the screen, even the small-sized film produces a good image 2 metres wide, adequately visible to an audience of 100 persons (1).

If, however, the technical properties of the image are unsatisfactory (confused image, heavy strating, close graining, due to the fact the film has been slightly effected by light or has been over-developed), the 16 mm. size quickly falls to its minimum efficiency.

For school use, therefore, we cannot recommend any size with a field smaller than 7.5×10.5 mm. (dimensions of the projection aperture 7.2×9.6 mm.). Satisfactory results have indeed been obtained in schools with 9.5 mm. films; but on closer examination it has always been found that specially favourable conditions were present in those particular cases; either the films were unusually perfect (2), or the subject required no special accentuation of details, or it consisted entirely of foreground or isolated parts of the entire subject.

(1) For technically satisfactory films, with not too dense grain it is also possible to improve the size of the size of the images; with thicker films it is possible to work with a double-winged shutter (see "Projector"), thus gaining in intensity of light, as frequently been demonstrated at experimental projections. For unusual projections the lamp can be made stronger. We cannot here discuss, however, questions that do not normally arise in schools.

(2) E. g., the films of Dr. SCHEMINSKI of Vienna, projected with improved machinery.

(1) Cf. BAUER: *La tecnica del cinema*, 1933, page 291, and IMHOF, *ibid.*, 1933, p. 762.

In projecting the film, account was taken primarily of the dimensions, and not of educational requirements. This does not apply only to foregrounds and individual parts of the whole. Another objection to excessively small dimensions is that any damage to the film, whether in development or in use, and any grain of dust that may have got between the layers of emulsion in the prints bulks much larger in projection than it would in the case of films of larger dimensions.

From what has been said above, it is clear that the 17.5 mm. size is more satisfactory for educational purposes than the 16 mm. If the decision as to the size of the film had rested with the school, it would have chosen the larger size.

Since, however, the majority of the more competent producers of reduced size films, and also the printing establishments and exigent amateur cinematographers, have pronounced in favour of the 16 mm. film, and since numerous experiments with reversible films, or simply with films converted from the normal to the reduced size, have shown that the 16 mm. film is adequate for all grades of education, it has necessarily been accepted as the school film. It is only a wide use of films which can lead to gradual reduction in their cost.

To make it possible to use any of the reduced sizes as desired in a school, projection machines have been constructed which can deal with all the different sizes, provided certain of their component parts are changed. These machines, however, are merely a makeshift, because, owing to their light capacity, they are properly adapted to only one size, and this could be avoided only by choosing very complicated and expensive machines.

PERFORATION. — The object of perforation is to allow the film to be unwound by means of sprocket wheels the teeth of which interlock and rapidly run off a strip of film. The devices for unwinding the reels of film put perforation under a considerable strain. If the lower edge of the perforations is damaged,

the picture is no longer steady. If the damage is very serious, the film can no longer run regularly through the projection machine. The perforations may be either at the sides if the film or in the middle, between the pictures. Lateral perforations may be either on both sides or on one. A double perforation naturally tends to make the film last longer, and a two-sided pull is more regular than a one-sided pull. In consequence of these factors, the normal-sized 35 mm. film is perforated on both sides, and on every side of each picture there are four holes to receive teeth, in the form of a Maltese cross. The 16 mm. film is also perforated on both sides, but has only one hole on each side of each picture, corresponding to the tooth on the sprocket-wheel. The half-normal-sized film has the same perforation as the normal film, but on one side only. 16 mm. sound-films are also perforated on one side only, in order to leave room for the sound-track on the other side.

This, of course, reduces the life of the perforation. The 9.5 mm. film receives a perforation in the centre, between the pictures. Consequently the width of the pictures has to be reduced by the diameter of the perforation.

In the case of small-sized school films, the perforation should be on both sides, so that the film can be kept longer in use.

Perfection of the Image.

The main requirements of an educational film are connected with the perfection of the image, because anything that is to be exhibited for instructional purpose must be absolutely clear and sufficiently luminous, and the tones must shade perfectly into one another. The first precautions to comply with these requirements must be taken at the time of shooting the film. Above all, there must be sufficient light. The light come from the proper direction and must be very carefully graduated. Outdoor pictures, taken by daylight, should only be shot in the right position relative to the sun, and in good weather; for other pictures — especially

interiors — there must be no attempt to economize on artificial light. The lighting and luminosity must be strictly adjusted to the subject, because the light must be concentrated on the essential features.

Needless to say, the principles of luminosity differ somewhat according to whether the picture is artistic, or scientific, or educational. In most cases, however, these conditions are not observed by competent cinema operators. A scientific or educational film can be satisfactorily made only by someone who is not merely a master of film technique but also thoroughly understands the subject that is to be filmed.

When, in taking a scientific film, it is impossible for material reasons to observe all the principles of film technique, the picture can be appreciably improved by suitable development and accurate printing. In the process of reproduction, the tones must be shade with the utmost care up to the main part of the subject. Sharp copies are to be avoided, because the object is not to obtain pictorial tones, but to reproduce the whole subject and its component parts as correctly as possible.

On the other hand, faint copies lose the more minute details and show up plastic defects. When sharp normal-sized negatives are reduced to smaller dimensions, the films obtained by optical printing are too hard, owing to Cailler's effect. If the negative cannot be illuminated with a very strong diffused light, it is better to print from the original negative a soft first positive, and then to reduce that positive to a small-sized negative, properly shaded, from which it will finally be possible to reproduce perfect copies. Unfortunately, establishments which print reduced size films are still limited by the small requirements of the majority of amateur film-producers, who are satisfied with mediocre results.

For educational purposes, however, such products must be rejected as inadequate (1).

(1) The pedagogic aspect of the formation of the film, which has given rise to so much criticism, does not form part of our present subject.

Summary.

From the foregoing statement the following deductions may be made:—

(1) *Normal sized film* readily gives large, clear, and excellent pictures, but, owing to the inflammability of the material of which it is made, serious precautions have to be taken against fire. These films are also very expensive owing to their very large field of image, and require large projection machines, which are also costly and not easily moved except in the case of portable machines, which give a weak light. As reduced size films are nowadays so common, the normal-sized film is necessary, for educational purposes, only in the larger halls and for bigger audiences.

(2) The sub-standard film of 16 mm fully meets teaching and educational requirements, where the audience is not too big, provided that the fineness of the emulsion and the perfection of the pictures are up to average standard. With still smaller sizes the same object may be achieved, but only in definitely favourable conditions. At present, therefore, the introduction of such films for school purposes is not to be recommended.

Reduced size film must be printed on a substance which will not ignite and does not burn easily; and, except in the case sound-films, it should be perforated at both edges.

The Projector.

The projector must be fitted up differently for the normal film and sub-standard film.

The machinery for normal sizes is nowadays much less frequently considered for school use, except for showing in large halls or cinema halls. The normal projection machinery for large and small cinemas and for travelling cinemas has now reached such a high stage of perfection, and has to be capable of serving so many different purposes, that no further special features can be demanded from it for educational purposes, except that it should be able to work at the rate of sixteen pictures per second, and be

supplied with a three-winged shutter. Projectors are constructed today for sound-films, which have a regular frequency of twenty-four images a second. The silent film was, and still is, best taken at the rate of sixteen pictures per second, and must therefore be shown at the same frequency in order to avoid misrepresenting, through excessive rapidity, the rate at which the subject moves. This is of the highest importance in school work. To meet the requirements stated, the two-winged shutter must be interchangeable with a three-winged shutter, and the motor must be fitted with a regulating device. When the normal projection machinery has to be used in a school hall without special safety arrangements, the intensity of the heat, and therefore the strength of the beam of light, must be reduced so that the nitrate film, which is completely blackened and fixed in the projection aperture, does not ignite in the space of an hour. Whilst the projection of normal-sized instructional films in large halls does not differ essentially from projections in cinema-theatres, the projection of reduced size films for educational purposes, in school halls, is very different. In schools, on the other hand, attention must be directed partly to circumstances different from those connected with the showing of reduced size films at home. For this reason, many forms of machinery for reduced size films which are manufactured for home cinemas cannot be used as they stand for school purposes.

The following are the requirements for *projection machinery for reduced size films suitable for use in a school hall*.

The school machine, which is intended for class instruction and will therefore be bought in large numbers by schools, must be as cheap as possible. Further, and more particularly for educational and hygienic reasons, the machine must be superior to those used for home cinemas. It can be obtained at a moderate price only by sacrificing everything that is unnecessary, both in the installation and in the equipment. The following requirements have been ascertained from

the examination of 125 different projection machines for sub-standard films, after careful technical study and many experiments in the educational field.

(1) *The machine* must be as *simple* as possible but *accurate* and *durable*, and must not include anything that is unnecessary (see 15 and 16).

Reason : — (a) A piece of apparatus that is simply and accurately constructed is unlikely to suffer damage, and works silently ; (b) the school must be able to count on making a considerable use of the machine, (c) the price must be as low as possible.

(2) *The machine* must work as *silently* as possible.

Reason : — Teacher and pupils must be able to speak so as to understand one another during the lesson.

(3) *The machine* must be *easy to carry* and possibly provided with handles.

Reason : — The machine will frequently have to be carried from one room to another, up and down stairs, without being taken to pieces.

(4) *The beam of light* which falls on the image during the movement of the three-winged shutter must give at least 56 international light-units (= 66 Helfner Lux). This gives a light-intensity of 35 international units (= 40 Helfner Lux), with an image 1.5 metres wide this width being taken as the rule for a school hall. When circumstances make it possible to install an aluminium screen (silver screen), the beam of light may be reduced by half.

Reason : — On a white surface and in well-darkened surroundings, the beam of light produced gives a sufficiently clear image with a film of normal density. The beam may even be sufficient with a somewhat thicker film and with somewhat defective darkening. In such cases, an endeavour must be made to obtain a more powerful beam.

A beam of 75 international light-units (= 85 Helfner Lux) gives a luminous reproduction of images about 2 metres in width. It also makes darker films luminous on a smaller screen. Projectors with luminous

osity below 56 international *Lumen* (light units) can only be used in small halls owing to the special characteristics of the aluminium screen.

(5) *The dispersion of the light at the edges* of the screen, by comparison with the centre, must not exceed 25 %.

Reason : — With a greater dispersion, an image on the screen is noticeably darker at the edges ; in darker pictures the details at the sides are less brought out.

(6) *The lens* must give a strong light (relative aperture 1-1.9 up to 1-1.4). It must give pictures that are clear and not coloured at the edges.

Reason : — (a) A great intensity of light gives too strong a beam, but with a relative aperture of 1-1.4 the clearness in depth of the less becomes so faint that in a not completely smooth film a slight blur is inevitable. Blurring and colouration of edges spoils the clear effect of the picture very considerably.

(7) *The shutter* must work three times for every change of image.

Reason : — For moving pictures, the educational film must move at the same rate as that at which the pictures were taken, i. e. 16 images per second. Since, to obtain complete absence of flicker, at least 48 changes of light are necessary, the shutter must close at least three times each second. This can be effected either by means of a three-winged shutter or by means of a single-winged shutter turning three times per second. For sound-films with 24 images per second, a two-winged shutter suffices. A shutter in which the two and three wings are interchangeable is to be recommended. As the number of light-changes is also reduced with a diminution in the luminosity of the images, it is possible with a two-winged shutter to project very dark films with good results. With a better light, even the dark parts are better illuminated in this way.

(8) *The feed and winding reels* must be easily accessible. There must not be any traction-pivots for winding the reels, nor any protective shield.

Reason : — Easy access facilitates the

placing of the film in position. Traction-pivots and protective shields do not work rapidly as organs for pressure and thrust. Spring-pivots do not leave both hands free for placing the film in position. Protection shields even if raised, make it more difficult to place the film in position.

(9) *The apparatus for moving the film* must be such as will preserve it well, allow of free running, and prevent buckling. There should be a sprocket on each side.

Reason : — (a) The image must be quite steady ; (b) sprockets on one side only engage too violently in the perforations. Sprockets on both sides will allow of good working even if the perforations on one side of the film are damaged.

(10) *The projection aperture* must be 7.21×9.65 mm. in size (1), with a maximum deviation of $\div 0.1$ mm.

Reason : — The effective light of the film is 7.5×10.5 mm. A greater restriction of the field of effective light at the sides is advisable, because the film may oscillate a little in places while being drawn through. Vertically, only the wrinkling of the film need be considered, since the force with which it is pulled through keeps it exactly in position.

(11) *The gate* or aperture for the film must be capable of being opened wide. This makes it possible to follow the film through for a greater distance. Guides for the film above and below the projection aperture are advisable (e. g. pivots placed laterally). These should operate even when the gate is open.

Reason : — (a) A wide opening of the gate makes it easier to place the film rapidly in position and to clean both the groove through which the film runs and the projection aperture ; (b) if it can be followed through for a considerable distance, the film's passage without difficulty can be ensured ; (c) a lateral guide, even when the gate is open, prevents the film from being caught up in the gateway.

(12) *Means of rectifying the path* of the belt of images must be within reach.

(1) Used in Germany and the United States.

Reason : — When normal-sized films are reduced to small size, slight displacements of the belt of images frequently occur. In the small-sized film camera, too, the belt of images is not always equidistant from the perforations.

(13) *The Reel* must be capable of taking 120 metres of film, and must have a diameter of 178 mm. The core must have a diameter of 44.45 mm. The shaft-hole should be square, with a side of 8 mm. The reel must not rock on its shaft. Mechanism for facilitating the rapid hooking-up of the beginning of the film is desirable.

Reason : — (a) It is not necessary to show more than 120 metres of sub-standard film in a school lesson ; (b) the diameter of the core should not be too small so that the film may not be damaged by too tight winding ; (c) the hole in the shaft should be so arranged that it can be adapted to all machines. A reel that rocks makes irritating noise throughout the showing of the film.

(14) The use of a *universal motor* is advisable. Its speed should be easily regulated either by resistance-box or by a friction-brake

Reason : — (a) The apparatus must be capable of being connected up either with continuous or with alternating current ; (b) if the regulating mechanism acts too rapidly, it is difficult to make the film run at exactly the right speed.

(15) *Apparatus for stopping* the motion of the film is not advisable.

Reason : — With light of the strength required nowadays, a fixed image cannot in practice be kept at a temperature low enough to prevent permanent damage to the film. Even a slight deterioration of the film produces blurring of the images in subsequent projections. Moreover, small-sized fixed film is not so good as the normal slide. All images representing subjects in rapid motion lack clearness in the film. (Pictures that can be very rapidly taken, with an instantaneous exposure, should be shown as fixed images).

(16) *A reversing lever is unnecessary.*

Reason : — The time taken in running a

film back is wasted for teaching purposes. An educational film should be so produced that its contents can be taken in by the pupils without repetition of individual scenes. If, however, a partial re-winding should happen to be necessary, this can be more rapidly done by means of a normal winder (cf. 19).

(17) The *resistances* of the current for the light and for the motor — to the extent required at the normal tension of the machine — should be contained in the machine itself. Supplementary resistances, for other tensions, should be so arranged as not to interfere with the handling of the machine. It is desirable that the resistances should not become overheated, and that they should be protected so that outsiders cannot touch them.

Reason : — The machine, in working order, should form a single unit, and should be easy to carry from one place to another.

(18) The projector should be provided with an *apparatus for measuring energy*. A small amperometer, showing the normal strength of the current for the lamps, is sufficient. It should be lighted up to some extent.

Reason : — The lamp must always be supplied with normal current, so that neither the light nor the life of the lamp is reduced.

(19) The projector carrier, should be fitted with a device for rewinding the film.

Reason : — The film must be rapidly wound on the spot, without the need of a second machine.

(20). The machine should have *oiling-points*, not too numerous, but easily seen and clearly marked.

Reason : — If there are too many oiling-points, or if they are not marked clearly enough, it is easier to overlook some of them.

(21). The *diffused light* which comes from the source of light should, as far as possible, be shut out.

Reason : — Any unnecessary lighting of the projection-room lessens the clearness of details, particularly when the light of the machine itself is not very strong.

(22) With every school machine there should be a *press* for sticking films together.

Reason : — Broken joins must be repaired immediately after a film has been shown.

The Screen.

The screen must reflect as much light as possible. It should therefore be impenetrable to light, and white if possible. It should be absolutely smooth, so that there are no shadows and no deformation of the images. For small screens, a sheet of paper (not cardboard) is enough, provided it is sufficiently white and strong and may easily be stretched on a frame.

There are also paper screens that can be rolled up, but they are easily damaged and creased. Cloth screens that can be rolled up must be coated with baryta white (permanent white) or zinc white, so that they are a good white and become impenetrable by light.

Screens made of untreated cloth, which are put up for improvised cinema-shows, allow a great deal of light to pass through and the luminosity of the projection which is already comparatively weak in light, is thus reduced. A very smooth plaster wall makes an excellent screen and its refractive capacity can be still further increased by a layer of baryta white. For this purpose, it may be brushed over with water-colours or opaque oil-colours.

The two types of screen the reflecting one with a metallic coating of aluminium powder known as the "silver screen" and the pearly screen with very small fragments of glass, (giving results similar to those obtained with the former), which are both most commonly used for home cinemas with an apparatus giving weak light, are not as a rule suitable for use in school halls. They do indeed greatly strengthen the refraction of the light in a direction perpendicular to the projection-surface, but they diffuse so little at the sides, and at so acute an angle, that they can be considered only for long and narrow rooms. These screens disperse the light in varying degrees according to their position. It is easy to ascertain experimentally the maxi-

mum angle at which, like a white screen, they are capable of diffusing the light with sufficient intensity. This is done by projecting the beam of light on the screen with the projection aperture empty. At the same time, a large sheet of white paper is placed over the aperture. Then, by moving sideways a point is reached at which the luminosity is equally strong on the screen and on the sheet of paper. On moving still further to the side, the screen appears darker than the sheet of paper.

Members of the audience sitting some distance away at the side see, when a picture is projected, an image which is darker than if a white screen with uniform diffusion had been used. The luminous effect of metal screens is that it reflects greater quantities of light. Screens which reflect too intensely show a bright spot in the centre; this is the reflected image of the projection-objective.

The screen must be protected from dust and dirt; if it should become dirty, it must be re-coated. A screen that has been recently coated is capable of reflecting 90 % of the light thrown on it. Experiments made with dusty or dirty screens have shown only 50 % reflection. In such cases it is not surprising that projection machines working with a minimum strength of light produce image which are insufficiently bright.

Installations for Darkening Rooms. The projection hall should be as dark as possible. Diffused light, falling on the screen from any direction, spoils the projection seriously, because it reduces the contrasts, and consequently a large part of the detail of the picture is not seen. Even an intense strengthening of the beam of light may fail to compensate for the loss of contrasts. (1) In the showing of small sized films, more particularly, with maximum-sized images combined with minimum strength of light, all diffused light must be carefully shut out.

(1) Cf. experiments by Th. VOGT: *Bildwart*, 1932, pp. 8 et seq.

The total darkening of large school-rooms, with their big windows, is, unfortunately, very expensive, particularly it has to be done with equipment supplied at a later date. Since the showing of slides and films can nowadays be so effectively employed as an aid to teaching, attention should be given, in the plans for any school building, to the possibility of darkening the various class rooms even if the present teaching staff make no specific request.

It is not enough to have one hall that can be darkened, or one special projection-room, in each school, or even on each floor of the building, for projections of pictures and films serve their full educational purpose only when they take place during the lesson, at the moment when the teaching has reached the appropriate stage.

The best way of darkening rooms is to use curtains of black cotton material, thickly woven and impervious to light. These are placed on a roller overhead and run down between deep grooves at the sides.

Special attention must also, however, be given to the shutting-out of light both above and below. The cheapest method, in most cases, is to use light-proof curtains, which can be drawn by means of cords at both sides of the window. They must be well nailed down on one side, so that the light does not pass through, and should fall somewhat lower than the window-sill if possible, right down to the floor. They should be so made that they can be drawn one over the other and completely, or almost completely, cover the window-space.

In some cases, large frames covered with cloth or with a thick layer of light-proof

material have proved sufficient when they can be placed over the window-spaces after the windows have been well darkened by means of suitable equipment.

Curtains, hangings, and frames can be quickly handled by the pupils themselves, if the work has been property allotted among those sitting near. The curtains may, of course, be raised and lowered by mechanical means, where these are available.

If, on account of the expense, it is not possible to instal equipment for darkening the rooms in a new school building, the builder, in constructing and fitting the window-frames should bear in mind the possibility of equipment being supplied later. Steps should be taken to ensure that these requirements are observed in the building of schools, especially as they entail no extra expense.

A detailed report should be submitted to the Congress on problems connected with the darkening of rooms and the solutions which have been found specially good or specially easy and economical.

The foregoing statement gives a summary view of the chief technical problems connected with the educational cinema.

It should be discussed at the Congress, where the various requirements set forth should be considered.

Since, because of the small space available, some of these requirements have had to be dealt with very briefly, an attempt should be made to go into them more fully, and the Congress should, in particular, consider experience gained in any direction, so that the discussion may lead to wellweighed decisions and recommendations.

RECENT PROGRESS IN REVERSIBLE FILM AND AMATEUR CINEMATOGRAPHERS

By

Professor Rodolfo Namias.

THE sub-standard film continues to encounter general favour, and enjoys new methods of application. This is due to the introduction of perfect cameras for 9,5 mm and 8mm film, and also to the immense advances made in emulsions from the point of view of their sensitiveness and chromatic quality, granulation and reversibility.

Progress in Making Sensitive Emulsions. Until a few years ago, the manufacture of ultra-sensitive emulsions of gelatine bromides was carried out by mixing a solution of gelatine containing bromide of potassium and a small quantity of iodide of potassium with an ammoniacal solution of nitrate of silver.

With a process of prolonged heating at a certain temperature, the so called *maturation* process set in. The grains of iodide and bromide of silver increase in size with a corresponding increase in sensitiveness. The maturation process under these conditions has a limit due to the necessity of not increasing the granularity of the emulsion and the undesirability of forming a veiled surface.

On the other hand, there were factors tending to render the degree of sensitiveness inconstant. This, in fact, depended on the quality of the gelatine used.

It was only through the discovery made by Dr Shephard of the allyl-thiourea substance which renders gelatine *active* that it was possible to do away with the inconstant ratio due to the variations in the various types of gelatine.

Even choosing the most *active* kind of gelatine, or rendering it active with sulphurous solutions (traces of hyposulphite act in this way), we should not have produced emulsions having the sensitiveness and grain of those of today if other methods of procuring the phenomenon of maturation had not been discovered that do not increase the size of the grain.

The end has been attained by washing the emulsion to eliminate the ammonia and soluble salts, and then subjecting it to fusion with very small quantities of bromide of potassium, then prolonging the drying for several hours.

The effect of this treatment on the rapidity of the film is extraordinary, while the effect on the granulous texture of the emulsion is almost nil.

In this way manufacturers have arrived at producing emulsions with enormous sensitiveness which, if they do reach the hyperbolic figures used in certain commercial processes, mean that the rapidity of cinema negatives is practically five times greater than it was a few years ago.

Despite this, the grain is finer rather than coarser, as compared to the grain of the old emulsions.

The Special Requirements of Reversible Film. In sub-standard film, and especially in 9,5 and 8 mm film, the grain must be as fine as possible, even if it is at the expense of the sensitiveness, so as to allow of projections on a large screen, and also because a good inversion of the negative

on to a positive results all the finer in proportion to the fineness of the grain of the emulsion.

It has been stated (1) that in inversion the results obtained are not even approximately the same as the results from a direct picture and that, moreover, there is the distinct disadvantage of the too limited latitude of exposure.

The writer's experience — and I may mention that I was the first to study and introduce the inversion process of photographic images on gelatine and silver bromide (Photographic Congress of Florence 1899) does not bear out these criticisms.

Indeed, it may be believed that the inversion process with the types of film we possess today will give better pictures than those obtained by printing, because we shall have the effect of two granularities which do not coincide, that of the negative and that of the positive.

Inversion of Film not Requiring a Second Exposure. In this case, we must use a film with a very thin emulsion and it is necessary to establish with exactness the exposure time, for there is not much latitude.

Today with photo-electric cell posometers (Metraphot, Photoskop and others) it is easy to avoid exposure errors.

The Pathé Baby 9,5 mm film is the most suitable for inversion purposes without a second exposure, and it is the only type that the amateur can handle by himself.

I dealt with the chemistry of this method in a series of articles published in the review *Il Progresso Fotografico*, which were afterwards reprinted in a special chapter of my Encyclopedic Manual of Photography, (9th edition 1934).

As I have shown what is required is a developer which works in depth (the paraphenilendyamina bath recommended by Pathé works well) but after the inversion we must use a strengthening process which acts with

great regularity independently of the action of the light. I have shown that hydrosulphite of soda, the general reducer indicated by the Pathé firm, which is useful owing to the fact that it favours the formation of blackened silver, has grave disadvantages owing to its instability and its capacity to turn in some degree into hyposulphite of soda.

A fortifier which has the greatest regularity consists of a weak solution of sulphide of soda, which turns the images brown through the formation of sulphide of silver.

The action of this blackening bath should be prolonged until the image gains a proper density. The excess of unblackened bromide of silver can be eliminated with a solution of hyposulphite. The operation implies a test for density.

The sulphide of silver image can be converted again into a dark image by means of a bath with acidulated permanganate of sodium and a second total development in full light.

The black image appears more transparent and more brilliant for projection. This method which I have barely outlined has been used by several amateurs anxious to have the satisfaction of doing the operation themselves, thus also of cutting expenses. It is the only safe method if one wants to do without the second exposure.

Inversion of Film and Development after a Second Exposure. The film intended for a second exposure after the inversion and before the second development

does not require a very thin coating of emulsion. Indeed, it is better if the coating is of a certain thickness because this allows a very considerable latitude in the matter of exposure, while with the help of the second exposure it is possible, within fairly wide limits, to correct under or over-exposure.

The difficulty is in obtaining this second exposure in a certain and regular manner and for the right time.

Methods for carrying out this operation oneself have been suggested. The frame on which the inverted film is wound and

(1) Dr. IMHOFF of Basle in the «International Review of Ed. Cinematography», November 1933.

protected from the light is placed in a box, in which it is subjected on all sides to the light of several lamps.

After the exposure, the development is carried out to that degree necessary for darkening the silver bromide that creates the image, eliminating the excess afterwards with hyposulphite.

Besides being complicated, this method has two serious disadvantages.

(1) It is very difficult to obtain a uniform exposure of the film in every part. (2) It is possible to correct errors of exposure which affect the entire film, but not errors which are only partial and limited to a section of the picture-making.

The problem of how to handle inverted film has, we may say, been solved, by means of the second exposure regulated automatically according to the opaqueness.

It is by means of the photo-electric cell that we can measure such opaqueness and regulate the intensity of the illuminant. It can be seen that in this fashion we can correct even considerable errors in exposure because if the residual image after the inversion is exaggerated, the lighting will be automatically limited to a portion of the stratum necessary to give the requisite intensity in subsequent development.

Experiments with Widely varying Exposures carried out on 8 mm film and automatically Developed.

second exposure automatically regulated.

I used the Cine Kodak N° 8, which is a handy and perfect apparatus. The film used was Kodak super-sensitive panchromatic, which in the cinema industry is, we may say, the only film used, since it is the most sensitive to the light of incandescent electric lamps which form the chief illuminant in studios.

Panchromatic film, intended for sub-standard cinema cameras using 16 mm and 8 mm reels, has probably the same emulsion as the Kodak industrial film, for the Kodak

people have been able to increase greatly the ordinary and chromatic sensitiveness of the film without increasing the grain as compared with the old type film, indeed diminishing it. This film, treated with an appropriate bath, will allow of a development suitable for the successive inversion.

The automatic machine which Kodaks have produced for the development and inversion of 16 and 8 mm films is not known in its particulars, being in the nature of a trade secret.

It is known that after the first development and inversion, every section of the film is, so to say, explored in its opacity by means of a application of the photo-electric cell sensitive to red light. The cell commands the resistance of the lamp which has to impress the bromide of silver for the second exposure.

After the second exposure, and the second development, the excess of bromide of silver is eliminated by fixing.

Films which a colleague of mine exposed under varying conditions (one film shows some interesting episodes of the palio of Siena) were of necessity handed to the Kodak firm for development and inversion and returned ready for projection.

It was a great revelation for me to observe the perfection of the pictures. Proportionately, as compared with normal theatrical film, the projected image was larger, and in detail, modelling, absence of grain, sharpness and transparency it was such as to make one think that cinematography with substandard, reversible film is today able to compete with and in certain circumstances to be superior to ordinary normal size theatrical film.

Indeed, when we are dealing with negative film, we are very far from being able to make such important corrections in the wrongly exposed sections of film, and it is inevitable that we find in the negative images differing in intensity and contrasts. This disequilibrium cannot ever be remedied in the positive print as it is in the *direct automatic control development of the positive film*. Moreover, as I have already said, the grain of the image is superior as is also the detail, which is

often partially lost owing to a lack of correspondence between the opacity and the contrasts of the negative and the characteristics of the positive emulsion.

Another machine for the automatic development of reversible film is in course of study by the eminent cinema expert Engineer Lobel on behalf of the Pathé Co.

Advisability of Encouraging Recreational, Documentary and Educational Cinematography by means of special Installations for the Treatment and Multiplication of Films.

After the foregoing remarks, it is obvious that it is advisable today to encourage and help on the work of cinema amateurs and indeed of all those who by working with sub-standard film can obtain a documentation of events

and natural objects which can both interest and instruct.

It has been said, and with a certain justice, that it is the cinema amateur who may be looked to for the renovation of the motion picture. The young cine-amateurs must provide us with recreational films too which must be something better than the usual film adaptations of theatrical pieces.

Without going too far, it may safely be said that the amateur film can reveal capacities and possibilities to us which the industrial film of the big studios will be able to work out, giving chances to young film directors.

We must not think though that the amateur

can produce negatives to be printed, thus burdening him with a double expense, while the cost of inverted positive film is by no means negligible. It is only after a projection that one can know if a positive is worth handling for recreational, documentary or instructive purposes.

The excellent institution of the *Dopolavoro* (Workmen's After-Work Association) has a great chance nowadays of assisting cinema work through the technical aid of its Photographic Society and Cine Club.

It is not my task to make suggestions, but there is no doubt that by encouraging the cine-amateur and helping him to produce pictures cheaply, by forming commissions to offer awards and judge films, classifying them for documentary or educational purposes, we should obtain collections of films that could be projected in the sections of the *Dopolavoro*. Such pictures would provide recreation and instruction, and also be useful for propaganda purposes to exalt the works and institutions of the Fascist regime.

If any film happened to be of exceptional interest, it could be multiplied through a negative, or by means of systems such as the *Ozaphane* system, which allows of direct reproduction of positive from positive.

A whole technical and cultural organization is implied in this suggestion of mine, which ought to have the approval of the I. I. E. C. to whose objects it could make an effective contribution.

NARROW WIDTH MOTION PICTURES

By WILLIAM M. GREGORY, *Director Educational Museum, Cleveland, Ohio.*

MOTION PICTURES IN THE CLASSROOM. — The narrow gauge 16mm film is the best solution for instruction by motion picture in the classroom. If the classroom has a screen and the room can be darkened, it is suitable for using the narrow gauge motion picture equipment. An expensive fire booth, a licensed operator and an expensive projector are not required. The narrow width motion picture is the greatest advancement in visual instruction in recent years.

The narrow gauge films are made for instruction in the classroom. If the teacher wishes to give city pupils ideas of country life, the film presents vividly activities of farm life. The cow, the horse, the pig and the other farm animals are shown at home on the farm. They are alive and real to children who get clear concepts. The picture can be repeated several times and the class room for the time becomes a real farm to the pupils.

In showing pupils by the motion picture how people live and what they do, geography becomes alive with interest. Rivers, winds, volcanoes, and other physical environments are brought to children in a clear and vivid manner. No reason for geography teaching to be barren of results, careful educational tests have shown the film to be stimulating and worth while.

The pictorial story of Daniel Boone is fascinating to the history class. To travel with Columbus, or ride the trail with the pioneer are worthwhile experiences possible with the classroom film. Luther Burbank at work in his garden is an inspiration to practical students of nature. The life of a butterfly from the pupae to the larvae is a story that children can see and understand. The growth of the flower, seed and leaf are all shown on the film in a way that cannot be equalled by text or chart.

The film story of bread from the grain to the loaf arouses ideas, questions and problems that call forth effort activity from the pupils. The narrow gauge motion picture can be used as laboratory material in many subjects.

THE COST OF NARROW GAUGE FILMS. — The low cost of the film makes it possible to organize a film library. The narrow gauge film or 16mm is sold outright to schools for \$ 20.00 to \$ 35.00 per 400 feet reel. When the school of the country purchase the

film text in sufficient quantities, the price per reel will be much lower. In any community, schools can be supplied in the films from a central library in the country or in the nearest large city. A central library of two to three hundred reels is sufficient to supply many schools. Most of the large cities have working libraries from which teachers secure reels of film in the same manner as books are drawn from a library. This circulating library method of handling films renders the cost relatively low. The life of the 16mm film with ordinary care is about two hundred showings, or ten cents for each showing up to two hundred. The 16mm film is non-explosive, is easily repaired and most of the large film companies are now producing the 16mm films especially for school work. It is important that each film can be accompanied by a teachers' guide and that the guide be used by teacher and pupils.

SOURCES FOR EDUCATIONAL NARROW WIDTH FILMS.

— The 16mm film may be rented or purchased. The rentals are usually a dollar for each reel. It is more advisable to organize a central circulating library of films and purchase those subjects which are needed in the school service.

The following firms will send catalogues and prices of narrow gauge films which they produce and distribute.

The above sources will supply any school with excellent narrow gauge films. It is advisable to purchase films only after they have been carefully screened and shown to teachers who are to use them. Some narrow gauge films are not properly printed and defective, hence they should be all carefully screened before purchase. A committee selected for this screening purpose will acquaint teachers with their contents and give some technique as to their use. A film is of very small educational value if it is simply shown without any discussion following its screening by the pupils in the class. The narrow gauge motion picture fulfills no educational value when it is simply shown as an entertainment in the school room.

Mr Gregory, author of the Report on Reduced Size School film is an expert in the matter of visual aid teaching.

Since 1922 he has studies — his first article "Problems concerning the Educational Motion

Picture" appeared in *The Moving Picture Age* in January 1922, — the possibilities of using intuitive aids in didactics and especially the film, both as a guide for the teacher and as a practical means of assistance for the pupil.

[His studies in the use of visual aids in the teaching of geography are notable. In one of these, published by *The Ohio State University* (Visual Aids in Geography). Mr Gregory enumerates the various types of visual material used in teaching geography (graphs, drawings, stills and motion pictures) and points out the enormous importance of the film as a means for rendering the study of this subject interesting and attractive.

According to Mr Gregory, the principal reasons for this are the following :

(1) Geography is a picturesque and human study of certain physical aspects, and therefore the film proves specially useful here since it can demonstrate life in movement and in its functions.

(2) The film reproduces geographical influences in their living development.

(3) Physical phenomena, such as inundations, eruptions of lava, eclipses, earthquakes, etc., which are not easily comprehensible to the student's mind, become alive and easily explained when seen on the screen.

(4) The composition of maps and their use becomes easy and accessible in the motion picture, as was seen during the war, when by means of films soldiers were taught the meaning of relief maps.

(5) The motion picture makes maps vivid and animated. The same thing applies to drawings and sketches and diagrams.

(6) The geographer can use his own geographical studies and observations by means of the motion picture.

* * *

In another work *Visual Aid in The Class-room*, Mr Gregory sets forth the principle motives which militate in favour of a wide application of visual aids in scholastic teaching. The advantages which the pupil derives from their use are many, and the writer sums them up in the following decalogue.

Visual aids in the school permit the pupil :

(1) to render abstract ideas more concrete ;

(2) to create the necessary link between the words and the objects which they indicate ;

(3) to render surrounding conditions and ideas explained, visual ;

(4) to economize the time necessary for the understanding of facts ;

(5) to induce the pupils to take an interest in objective things ;

(6) to reduce the time used for excursions ;

(7) to make the conception of problems more accessible ;

(8) to form ideals ;

(9) to stimulate the imagination ;

(10) to offer the material for a centre of scholastic activity.

The application of visual means in the school requires however, according to Mr Gregory, a rational system of organization, a suitable adaptation for scholastic purposes of the visual material available. This is without doubt the essential part of the modern scholastic programme. We must therefore take account of the necessary expenses for the purchase of visual material, limiting ourselves to the acquisition of what is strictly indispensable according to the curriculum.

The use of visual aids requires constant care, a perfect knowledge of the material, and a definite special preparation of the teachers.

This is perhaps the chief problem of visual teaching, "technism" which must not be limited to the mere preparation of the films, though this is important enough, and requires the collaboration of experts, but should look first of all to the educationist.

There is perhaps no need that he should be a particularly good operator. It is necessary, however that he should enter into the spirit and the method of the new system of didactic aids and the contingent scholastic necessities and the particular mentalities of the pupils. He should be able to guess the right moment to introduce his comments and how far he must complete the work of the motion picture with verbal explanations.

"Technism" rather than technique since it is a question of making one's own film with its content and form, just as the educationist has to make his own text-book.

Visual education will not enjoy its full and integral development unless the educationist knows how to become a perfect master of comment, which may perhaps imply as a preliminary that he should become a direct creator of teaching films or at any rate important collaborator in their production.

Dr. LUCIANO de FEO, *Editor and Responsible Manager*

Rome — «L'Universale» Tipografia Poliglotta.



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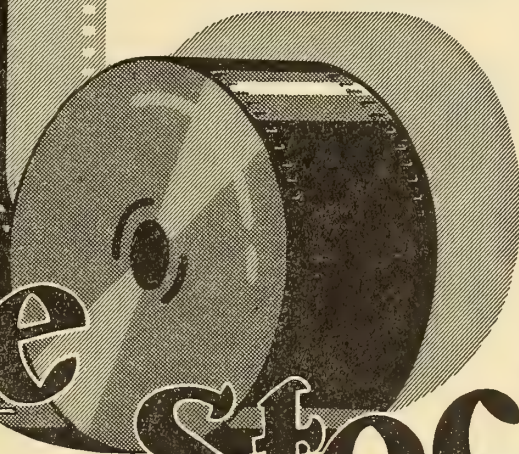
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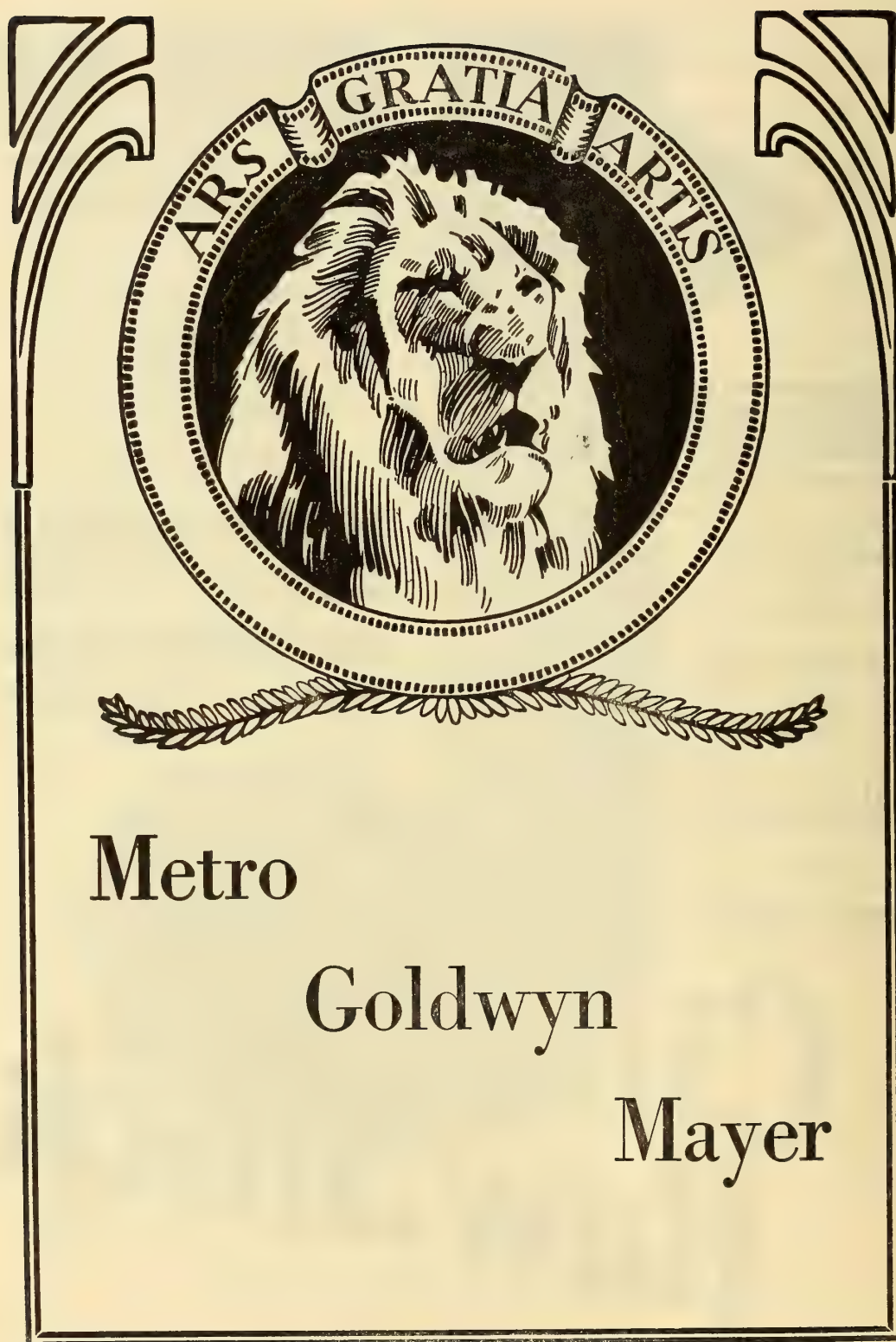
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OF

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The Director of the International Labour Office,
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are present at the meetings in an advisory capacity.*

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THE INTERNATIONAL CONGRESS OF TEACHING AND EDUCATION

FROM April 19 to April 25 there was held in Rome, under the auspices of the I. I. E. C. the Teaching and Education Congress at which representatives of governments, corporate bodies, associations and private persons from all parts of the world met to examine the present position of the cinema in connection with didactics and education, and to trace out the policy of the future for the motion picture in these fields.

A few figures will suffice to demonstrate the importance of the Rome meetings. Either officially or semi-officially, 45 nations participated; there were over 700 congressists, the majority of whom represented national or international institutions which count their members by the million. There were about 240 written reports sent to the secretary of the Congress before the sittings began and during the sittings and debates. Five days of verbal arguments led to the drafting and approval at the final general assembly of the resolutions which are published in the pages of this review. All this provides a synthesis of the real importance of the Congress, an importance which was revealed at the inaugural ceremony, when His Excellency Benito Mussolini opened the meeting with some clear incisive and expressive remarks in the course of which he pointed out that the motion picture is one of the most interesting aspects of the present movement for the progress of civilization. It is an industry, he declared, which employs a capital running into millions and gives work to millions of persons from artists to walkers-on and supers, and casts on the screens of the world pictures which are seen by scores of millions of people.

It will be well to summarize in a few lines the antecedents and consequences of the Rome conference, to examine why and how the congress met in the building of the I. I. E. C. and to see what conclusions may be drawn from the work accomplished.

The Congress must logically be considered, as was stated from the beginning in the programme which the I. I. E. C. issued to explain the agenda, as a direct manifestation of the Rome Institute's activity and as a necessary consequence of its five years of work.

The Rome Institute began, as far back as November 1928, to make systematic and critical research into all that had been attempted in various countries for utilizing the motion picture for didactic and educational ends. It organized symposia and inquiries in several countries which were used to gather opinions and contrasting views on points that were deemed and actually were full of uncertainties. It has founded a review which has gathered together some magnificent material in the way of documentation, and scientific research.

From this first purely theoretical and preparatory phase, the next move was the formation of National Committees of the Educational Cinema in various countries,

whose work was to act as collaborators of the I. I. E. C. in their own country, and to help to spread the use of the educational motion picture. The next step was the preparation of a comparative study on *world cinema legislation* which was destined from the very beginning to furnish practical results, both with regard to the fiscal treatment accorded to films and the question of the protection of children and young people from harmful spectacles. Soon after this, there followed the presentation and approval at Geneva before an international conference, of the *Customs Convention*. The purpose of this was to facilitate the free transit across frontiers of films having a genuine international value for didactic and educational ends. Finally we have the preparation of the *Encyclopedia of the Film*, a work unique of its kind and a genuine novelty, to which the leading experts and technicians of the motion picture have contributed. The encyclopedia will be published shortly.

This is a practical synthesis which shows a realization of the problems that have everywhere formed the object of study and research, and demonstrates a certainty, drawn from experience and the work of experts, that the contrasts of opinions and the doubts encountered in the section of the teaching film, including those of a methodological character, have been overcome. We have arrived at definite conclusions, and now rather than it being a question of harmonizing different tendencies, it is a case of coordinating minor forms and elements of the whole question.

It is now universally recognized that the motion picture must form an integral part of teaching; that its value is greater than that of other visual aids, even though there may be subjects where the use of the lantern slide, models or laboratory experiments are more useful. This is merely a detail of the application of a principle which is now generally accepted. It is clear that the double use of text-book and film must harmonize with scholastic programmes, or rather, vice versa, since it is perhaps more logical that new curricula and new methods of study should appreciate and follow the value of the motion picture in the school and conform themselves to its use and wider diffusion. No one disputes the fact that the teacher must not be driven out of the school by the film, and that the school must not run the danger of being excessively mechanized, while the teacher must always remain the master of the situation. There is another observation which arises in connection with the foregoing and has nothing to do with the motion picture and its utility but concerns didactics. This point is that programmes or curricula ought to be adapted to the necessities of the various scholastic grades and classes, and that only such film instruction is useful as is suitable for the mentality, minds and future lives of the children and young people. Thus, the more difficult forms of study are to be left to those whose intention it is to undertake regular courses of study and frequent the universities. On the other hand, the simpler forms of motion picture instruction should be reserved for the elementary grades, for the sons of agricultural labourers or operatives, who will, in all probability, not prosecute their studies after a few years at the elementary school.

The teachers who propose to engage in this work of film didactics ought to be specialized and they should be encouraged to make a full use of the cinema, lantern slides and all aids in general for the advancement of culture and a knowledge of life.

To go back to the Congress, there has never been any doubt that the motion picture can be used in the best possible way for technical and trade teaching as well as for spread-

ing agricultural notions. It has always been a case of coming down to details and particulars, of establishing the method to be followed to obtain the best results from the film.

The problem assumed a different aspect when the strict limits of teaching were left behind and one entered into the sphere of psychology and therefore of physiology and the applications of the motion picture to science.

In the case of both of these departments, we have to face a hypothesis which is different from the didactic question. We have to consider the possible psychological and physiological damage that the cinema may cause to the minds and spirits of the youngest spectators. What damage and harm do we refer to in the case of the scholastic film? Since it is clear that proper didactic and cultural films can only in very exceptional cases, that is, in the case of sick children, be the cause of harm, it results that the problem here is entirely one of detail, of systems of production and projection, of adapting the projection to the pupils and the general surroundings. Thus it is not possible to lay down once and for all certain definite rules, but a great deal must inevitably be left in this question to the prudent judgment and intelligence of the teacher himself.

Therefore, the psychological and physiological harm must be looked for in another section. That is, in the domain of the theatrical or spectacular picture. This is not of immediate interest to teaching, but only to education in general and the principles of safeguarding our young people which require state action.

In the matter of scientific teaching, apart from the undoubted utility of the motion picture for didactics and popularizing principles and scientific research, where it is used in laboratories under the direct command and direction of the teachers, we have to face another problem, which is that of the *kind of film to project*. *Kind* can refer to the production and the projection. In the matter of creation, we must never forget that the film intended for primary school children must always be perfectly simple, clear and elementary, and we may say, in a sense, of a standardized demonstrative nature.

In the case of scientific pictures, the producer is no longer bound by the limitations which come from having to address his film to unformed and virgin minds and intelligences. He has full liberty of language and expression. He can give his comment an individual style, as if it were a conference and not only a lesson. Thus, while the teaching film for the lower grades only requires a collaboration between expert technician and teacher, so that strict adherence to the curriculum and the documentary truth are respected according to the best technical canons, the scientific picture can reveal to us the individuality and personality of its creator. Teacher and expert join together and give, consequently, a characteristic touch to each picture in which the technician also to some lesser extent contributes.

In connection with the kind of film, it is clear that we must graduate projections according to the possibilities and capacities of the spectator. There are episodes of horror, disgust and terror which are useful for the scientist for purposes of study, but which are often enough dangerous for young people. Still, as we have already said, the solution of the problem is a simple one. It is, in the long run, all a question of method, common sense and good taste. There is no need to lay down laws and regulations here, but once the principle has been established, we must settle each case on its own merits.

The I. I. E. C., in devoting much of its activity to the scientific film, is seeking to

carry out in connection therewith one of its most important tasks, which is the preparation, with the aid of technical commissions all over the world, of a medical-surgical encyclopedia which will be the first of its kind for the use of students and teachers in medicine and surgery.

The teaching world would seem, therefore, apart from some questions of method to have overcome the difficult period in the utilization of the motion picture. It has, at any rate, overcome the theoretical difficulties. It becomes therefore a good moment for the interested parties to abandon theory for practice, to place their plans of work in alignment with contingent necessities, and to make sure that the application of principles is made in conformity with what had been foreseen.

There is one section where the motion picture can develop without practically any limitations, and where the study of the whole subject is still in a rudimentary state. This is the department of technique and education in general.

A study of film technique will help us to find the best motion picture cameras and projectors for families, schools, public bodies, associations, travelling propaganda and public cinemas. Types of apparatus, formats of film, the question of non-inflammability and inflammability, systems for reducing the danger from fire in cinemas (halls, schools, cabins) the respective didactic and educational value of the silent and talking film; the coloured film; the slow motion and accelerated running off of films, micro-cinematography; X-ray cinematography, types of screens, etc., are all subjects which demand our attention. The list is endless. In order to facilitate the interchange of films, the institution of cinema repositories and distribution centres for films, it will be necessary to examine, as the Congress proposed, the creation of a standard type of reduced size film, which does not exclude the possibility of continuing to use normal 35 mm films for scientific and high cultural pictures. Such films can afterwards be reduced to a smaller format without losing anything of their luminous quality. Indeed, the reduction may even improve it.

If the Congress, in fact, engaged in lengthy and lively debates on the various forms of dynamic methodology, and if it approved a large number of important resolutions in this field of activity, from which it clearly results, as we have already said, that if the decisions arrived at do not alter the situation much, and tend only rather to improve and consolidate it, it is clear that in certain fields, such as those covered by the second and third section there was and is, on the contrary, much to be done.

We have referred to the question of technique. The doubts and anxieties of the Congress which, as a rule, can be perceived from the tenor of the resolutions, appear more than once in the debates and motions put forward:

- criterion of the historic, scientific and general documentary truth of the film not only to secure a national but also an international spread of the motion picture especially as a means of leading to a better understanding between nations;
- typical characteristics of the popular film;
- psychological and physiological effects of theatrical projections on the crowd, and particularly on children and young persons;
- propaganda value of news-reels for international ends and the advisability of examining the establishment of news-reels of an international character composed of items supplied by different countries and the best means for circulating such rapidly;
- the question of the cinema press. Its rapid growth imposes responsibilities.

It is therefore to be hoped that it may be able to direct the spectators' minds towards loftier ideals rather than encourage bad taste and doubtful expressions and ideas ;

— the formation of national committees along the lines of those already existing, in all those countries where such do not exist, in order to arrive at the formation of a vast network of local centres connected with the Rome Institute ;

— the characteristics of international catalogues which must necessarily follow the ratification and putting into effect of the Geneva Customs convention ;

— intensification and coordination in the establishment of cinema archives or repositories, film museums of a national character for fixing the criteria for making collections of the local production, and to act as liaison organs for the future formation of cinema archives ; museums and repositories of an international character ;

— the protection of young persons, and therefore the preparation of suitable legislation for this purpose, and of international conventions which, without touching the difficult question of censorship, would consider the case of young persons and the motion picture ;

— the necessity of providing a form of censorship to be exercised not only on the film, but on variety spectacles and on the advertising and publicity portions of projections ;

— in order to safeguard the position of young people, to consider the possibility and practical nature of preparing for them special programmes of a cultural nature for one projection ; such pictures to have also a recreational side to them so that the children do not feel the lack of the ordinary theatrical picture which they are accustomed to see ;

— to consider the difficult questions of blind-booking or block-booking to see what the effect of this system is, and to consider the possibility of finding out through an international inquiry what form of film distribution may be arrived at to avoid the disadvantages inherent in the method referred to ;

— to examine the question of the different effect and value of films on peoples of different race, mentality and culture.

All these points and many others besides were debated, without touching the question of the numerous types of film for the various departments of education and the necessity of examining the popular picture from the artistic, musical and aesthetic points of view, etc.

It is therefore clear that if the teaching film has found its proper path, which we must improve and keep in order, there remains still much to be done for the educational film and the question of an international distribution and circulation of pictures of this nature. There is work here to be faced immediately.

All this requires a change in our attitude. We must face the necessity of considering fresh problems and of not running the risk of becoming stale and mechanized, repeating things said a great number of times already, even though in different words. Otherwise we shall risk becoming monotonous and pedantic. We must seek new paths for the development of the motion picture, paths that no one so far has cared to seek out.

The Rome Congress has given the excellent results which were to be hoped for. Perhaps it has even done more than was expected. This shows its usefulness from every point of view, in studying the various problems of the hour. It has also allowed us to gather together a valuable mass of documents which will appear gradually in these pages. The

resolutions of the Congress will stand like a milestone for the future of the cinema, and as an act of faith and will on the part of all the congressists, to whom we proffer our greetings and cordial thanks for their calm and profitable collaboration.

The I. I. E. C. believes that it has accomplished its purpose with and through the Congress. It succeeded in assembling in Rome experts and men of science from all parts of the world and enabled them to engage in useful and profitable debates. It has collected with their help a mass of valuable material which is unique. It has indicated, through the resolutions that were approved, a definite policy for the public bodies, institutes, organizations governments, etc., represented.

It now becomes the task of the governments and bodies themselves to carry into effect what they deem advisable.

The Rome Institute will always be ready to give its assistance in work, sympathy or action. If the objects aimed are not reached, it will not be the fault of the I. I. E. C., which has done its best in encouraging, in willing and in daring.

* * *

The following list shows the composition of the official delegations to the Rome Congress as they were nominated by the governments interested, and a list of the institutions and associations of both a national and international character which sent representatives to the Congress. The names of isolated congressists who took an active part in the work of the Congress will also be found here. It should further be noted that a number of persons who are not mentioned in the following list took a regular part as observers in the work of the commissions and at the general assemblies. There were also present numerous representatives of the international press, including some special correspondents, who followed the labours of the Congress with an interest revealed in the numerous echoes which still continue to arrive at the Institute from all parts.

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Mr. ABDEL KERIM SAFWAT, Diplomat.

Congressists.

Dr. MATHIEU ; Dr. DE LUCA ; Dr. MOSSERI.

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Savings Bank of Glasgow : Mr. HENDERSON.

British Film Institute : Mr. J. W. BROWN ; Mr. D. WALEY.

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M. MASSÉ, ex-Minister for Agriculture ;
 M. BARRIER, of the Ministry of National Education ;
 M. LEBRUN, of the Ministry of National Education ;
 Dr. CAVAILLON, of the Public Health Ministry ;
 M. VIBOREL, of the Public Health Ministry ;
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 BENOIT-LEVY, Secretary General of the French Committee of the I. I. E. C. ;
 M. DEBRIE ;
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 M. BRENIER, Delegate of the Teachers' League ;
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 M. LAURENT, Director of the Central Bureau of Savings Banks ;
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 Prof. LEROUX, of the Paris Faculty of Medicine.

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 Dr. RAETHER, of the Reich Ministry for Propaganda ;
 Dr. ZIEROLD, of the Ministry of Public Instruction ;
 Dr. DOERING, President of the German Association of Teaching and Cultural Film
 Producers.

Dr. MAURER, Director of the German Association of Teaching and Cultural Film Producers.

Institutions and National Bodies and Associations.

Association of German Savings Banks (Deutschen Sparkassen) : Dr. KLEINER ; Dr. HERMANN ; Dr. HETZER.

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Agfa : Dr. RATHS ; Dr. BINDER ; Dr. LANGE ; Dr. SCHMIDT.

Tobis : Dr. BERGE.

Observers : Fraulein LOWENTHAL ; Herr WENZLER ; Dr. CZARNOWSKI ; Dr. ELIAS.

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Mr. DALIETOS, Councillor of Legation.

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Institutes and National Bodies and Associations.

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Schoovers Institute : Mr. SCHOOVERS ; Mr. VAN BLINKOEM ; Miss LANEN.

Congressists.

Mr. POLAK ; Mr. VAN NIEROP ; Dr. HOEBEN ; Dr. VAN DOMBURG ; Dr. VAN'T HOF ; Dr. VAN WIJK.

HUNGARY

Official Delegation.

Baron DE WLASSICS, Under-Secretary of State for the Ministry of Cults and Public Instruction ;

Baron VILLANI, Legation Councillor ;

Dr. TAUBINGER, of the Hungarian Film Agency.

Institutes and National Bodies and Associations.

Magyar Holland Kultur Gazdagi : Mr. STEIN.

Congressists.

Mr. FREUND.

ITALY

Official Delegation.

His Excellency the Hon. ERCOLE, Minister for National Education.

Presidency of the Council of Ministers : His Excellency Dr. BIANCHETTI ; Dr. BELLAZZI

Ministry for Foreign Affairs ; His Excellency Baron ALOISI, Ambassador ; The Hon. BODRERO, Senator ; The Hon. Count FERRETTI DI CASTEL FERRETTO, Deputy ; the Hon. FERRETTI, Deputy ; Dr. BIANCHERI CHIAPPORI, Minister Plenipotentiary ; Dr. DE PEPPA, Minister Plenipotentiary ; Dr. SCARPA, Consul.

Ministry of the Interior : Dr. BASILE ; Dr. ZURLO.

Ministry of National Education ; the Hon. VISCO, of the University of Rome, Deputy ; Prof. BORDONI, of the Rome School of Engineering ; Dr. SANTINI, Director General of Elementary Instruction ; Dr. PERNA, Inspector of Middle Schools ; Dr. VACCARI, Inspector.

Ministry for Agriculture and Forests : His Excellency the Hon. MARESCALCHI, Under-Secretary of State ; Dr. MARIANI, Director General of Agriculture ; Prof. MARINUCCI, Technical Inspector General.

Ministry of the Corporations : the Hon. PIERANTONI, Deputy, President of the Corporation of the Show Business ; Dr. ANZILLOTTI ; Dr. SANTORO ; Dr. DE SANCTIS ; Dr. DENTE ; Dr. TROISE.

Governor of Rome's Bureau : Prof. PADELLARO.

Opera Nazionale Dopolavoro (Workers' After-work Association) : Dr. BERETTA, Director General ; Dr. ROTUNNO, Chief of Artistic Cultural and Popular Education Service.

Opera Maternità ed Infanzia : Prof. FABBRI, President.

Croce Rossa Italiana : Dr. MATALONI.

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Commissariat for Touring : the Hon. BONARDI, Deputy ; Dr. MARIOTTI ; Dr. RAVA ; Count PELLATI ; Dr. FREDDI.

National Federation of Agricultural Experts : the Hon. GAETANI DI LAURENZANA, Deputy.

National Fascist Institute of Social Providence : Dr. CLERICI, Vice Director General.

Opera Nazionale Balilla : Dr. MARZOLO, Head of the Press Bureau.

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Representatives of Manufacturers of Motion Picture Apparatus : Engineer CECCHI, Cimeccanica ; Eng. PION, Pion Factory ; Eng. PREVOST, Prevost Works ; Eng. CAVAZZONI, Società Anon. San Giorgio ; Eng. MARTINEZ, Galileo Works ; Engineer CATENACCI, Marelli Works ; Engineer COLOMBO, Italian Pathé-Baby ; Dr. RISTORI, President of the S. I. C. E. D. ; Signor GIANNETTI, of the Microtecnica.

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Syndicate of Workers in the Theatre and Show Business : Signor MELCHIORRI.

National L. U. C. E. Institute : His Excellency Marquis PAULUCCI DE CALBOLI BARONE, President ; Consul FORMENTINI ; Signor CROCE ; Signor SCOGLI ; Dr. BARONE ; Dr. CONTI ; Dr. PAOLOZZI ; Dr. PUCCI ; Dr. LEONE ; Dr. ROSSI ; Dr. OMEGNA.

Italian National Committee for Intellectual Cooperation : Countess DI ROBILANT, President of the National Council of Italian Women ; Dr. RIGHETTI.

Institutes and National Bodies and Institutions.

National Association of Italian Savings Banks : His Excellency DE CAPITANI D'ARZAGO, President ; Dr. BATTOCCHIO, Councillor ; the Hon. BIANCHI, Deputy, Councillor ; Prof. BROGLIA, Senator ; the Hon. CAFFARELLI, Deputy, Councillor ; Dr. GABARDI, Councillor ; Dr. Marquis CLAVARINO, Councillor ; Prof. D'ACHIARDI, Senator, Councillor ; Dr. GASPERINI, Senator, Councillor ; Engineer GORLA, Councillor ; the Hon. FRIGNANI, Deputy, Councillor ; the Hon. MASETTI, Deputy, Councillor ; Dr. NISCO, Councillor ; Dr. PEPI, Councillor ; Dr. TERRIZZANI, Councillor ; the Hon. FACCHINETTI, Deputy, Delegate Councillor of the Credit Institute of Italian Savings Banks ; Dr. NICOTRA, General Director of the Agrarian Credit Bank and Savings Bank of the Ministry of Agriculture and Forestry.

Institute for the Italian Religious and Educational Cinema : Dr. MENEGHINI, Prince RUFFO DELLA SCALETTA, President.

Italian Touring Co. : Dr. ORO.

Italian Authors and Publishers Society : the Hon. ALFIERI, Deputy, President ; Sr. D'AMBRA ; Dr. DE STEFANI ; Dr. PIZZINI, Director General.

C. U. C. E. : Rev. CANZIANI, Director.

Congressists.

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Eng. LUZZATTO ; Eng. CASTIGLIONI ; Dr. MINOZZI ; Prof. BUSI ; Prof. CARAVAGLIOS ; Prof. CASTELLANI ; Dr. DALMAZZO ; Eng. FRANCHETTI ; Count PIETROMARCHI ; Dr. CO-RAZZIN ; Prof. GAZZONI ; Sig. VARI ; Prof. LOMBARDI VALLAURI ; Dr. CORTESE ; Sig. GUIDAZZI ; Prof. RENDA ; Count MIARI DE CUMANI ; Prof. PONZO ; Prof. GUZZANTI ; Prof. LOPEZ NUNES ; Sig. AMBROSIO ; Sig. APPIGNANI ; Prof. LOMBARDO RADICE ; Prof. BRUNELLI ; Prof. DALLARI ; Consul POLI ; Prof. MARCUCCI ; Prof. MONTESSORI ; Count NONIS ; Dr. BOCCHETTI ; Prof. LOUGHLIN ; Dr. CALABRESI ; Prof. TOMMASI ; Dr. MANFRIN ; Countess BORROMEO CODURRI ; Dr. MODIGLIANI ; Sig.ra PASSERINI POLLONE ; Dr. BEDUSCHI TODARO ; Sig. MOLFINO ; Marchese AFAN DE RIVERA COSTAGUTI ; the Hon. MECHERI ; Eng. RAFFAELLI ; Dr. MANDEL ; Eng. PEDACE ; Prof. MOTTINI ; Eng. ZIPOLI ; Eng. IRDI ; Dr. GOBBI ; Dr. FASSIO ; Sig.ra GIARTROSO DE COURTREN ; Dr. ZANOLI ; Sig. VIOLI ; Dr. MARCELLINI ; Sig.ra ROSATI VALENTINI ; Prof. GASCA DIAZ ; Sig.ra BASSI ; Eng. DE CATALDO ; Sig.ra BRUMMEL ; Dr. LEVI BIANCHINI ; Prof. GIAMMARINO ; Sig. NEPPI ; Sig. GERELLI ; Eng. SCHAEFER ; Dr. CERDELLI ; Sig. HERSKOVITZ ; Prof. ZUCCHI ; Prof. PISANI ; Sig.ra PONZINI ; Dr. ROSSINI ; Senator Conte GALLENGA STUART ; Prof. TURANO ; Prof. NUOLI ; Dr. CRISTOFANELLI ; Rev. PERBAL ; Sig. FELICI ; Sig. PARISH ; Rev. FERRARIS ; Dr. MARIANI ; Sig. LUALDI ; Rev. MORESCO ; Sig.ra ARMANI ; Dr. BARZETTI ; Sig.ra PIGNATTARI ; Prof. TAURO ; Count ZAPPI RECORDATI.

LATVIA

Official Delegation.

Dr. SPEKKE, Minister Plenipotentiary.

LITHUANIA

Official Delegation.

His Excellency CARNECKIS, Minister Plenipotentiary.

LUXEMBURG

Congressists.

Mr. KERSCHEN, Director of the Luxemburg Savings Bank.

MEXICO

Official Delegation.

His Excellency TELLEZ, Minister Plenipotentiary.

NORWAY

Official Delegation

Mr. NISSEN, Head of Cinema Censorship State Bureau ; Mr. KVIBERG, Head of Scholastic Film Bureau at Oslo.

PARAGUAY

Official Delegation.

Signor BOCCA, Consul General.

PERSIA**Official Delegation.**

His Excellency SEPHABODY, Minister Plenipotentiary.

Congressists.

Mr. AZIZI.

POLAND**Official Delegation.**

M. ORDYNSKI, of the Ministry of Foreign Affairs ; M. CHROMECKI ; M. KOCIEMSKI.

Institutes and National Bodies and Associations.

Warsaw Post Office Savings Bank : M. RUDZINSKI ; Dr. GRUBER.

PORTUGAL**Official Delegation.**

His Excellency DE CASTRO, Minister Plenipotentiary ;
M. DE OLIVEIRA BERNARDES, Secretary of Legation.

ROUMANIA**Official Delegation.**

Prof. KIRITZESCO, Director of Superior Education, President of the National Council
of the Educational Cinema.

Congressists.

Miss ATANASIU ; Princess CANTACUZENE ; Prof. ISOPESCU ; Miss SACHELAIRE.

SPAIN**Official Delegation.**

Dr. MARTINEZ AMADOR, of the Ministry of Foreign Affairs ;
Government of Catalonia : M. CARNER RIBALTA ; Dr. DIAZ PLAJA.

Institutes and National Bodies and Associations.

Valencia Scholastic Association : M. BRUNO MASIP.
Madrid Savings Bank : M. ALCAREZ ; M. SUAREZ.

Congressists.

Señor TRIGO MEZQUITA.

SWEDEN**Institutes and National Bodies and Associations.**

Svensk Filmindustri : Miss WETTERHOLM.

Congressists.

Prof. LINDBERGH.

SWITZERLAND

Official Delegation.

Dr. IMHOF, of the Basle Chamber of Teaching.

Institutes Bodies and National Associations.

Basle Chamber of Teaching : Herr GASSMANN.

Federal Technical School : Dr. RÜST.

Swiss Popular Bank : M. DESERT.

Geneva Savings Bank : M. FLEUTET.

Congressists.

Prof. FERRIERE ; Prof. DE REYNOLD ; M. SPRENGER ; M. JUNOD ; M. VIGNY ; Herr SCHWARZ ;
Herr BUHLER ; Fräulein SCHATZMANN ; Fräulein LOCHNER ; Fräulein LUBIENSKA ; Mlle
FILLION ; Herr FRITSCHI.

UNITED STATES

Official Delegation.

Mr. KOON, Educational Bureau of the Dept. of State.

Dr. CHARTERS, of the Bureau of Educational Research of Ohio University ;

Mr. HOBAN, of the Dept. of Public Education, Harrisburg ;

Mr. MANN, of the Museum of National History.

Mr. MILLIKEN, Sec. Motion Pictures Producers and Distribs. of America Inc.

Mr. LINDSTROM, of the Motion Picture Bureau of the Dept. of Agriculture.

Institutes Public Bodies Associations.

Visual Instruction Service of the University of Hawaii : Miss VERNON.

Congressists.

Mr. MORT ; Mrs. BRENNAN ; Miss GANNON.

U. R. S. S. (SOVIET REPUBLIC)

Official Delegation.

Mr. FRIDGUT, Secretary of Embassy.

URUGUAY

Official Delegation.

His Excellency RAMÓN GUERRA, Minister Plenipotentiary.

VENEZUELA

Official Delegation.

Dr. CASAS BRICENO, Councillor of Legation.

YUGOSLAVIA

Institutes, Public Bodies and National Associations.

Yugoslav Savings Bank : Dr. RACIC.

Zagreb Institute of Hygiene : M. BROSSLER.

Congressists.

Engineer RACIC.

INTERNATIONAL INSTITUTES, BODIES AND ASSOCIATIONS.

League of Nations : M. AVENOL, Secretary General ; Dr. PILOTTI, Additional Secretary General ; M. EKSTRAND, Director of Opium Traffic and Social Questions Dept. ; Prof. BASTIANELLI, of the Section of Hygiene ; Miss HALLSTEIN KALLIA ; Dr. BRUCOLERI, of the Information Section ; Signor BALDACCHINI, of the Rome Bureau Prof. CASULLI, of the Rome Bureau ;

International Labour Office : Sig. GALLONE, Chief of Section of General Information.

Organization of Intellectual Cooperation : M. DE MONTENACH.

International Institute of Intellectual Cooperation : Prof. DE REYNOLD ; Sig. SECRETAN ; M. HENRY.

Administrative Council of the I. I. E. C. : Mr. J. W. BROWN ; Prof. DE REYNOLD ; M. ORDYNSKI.

International University Federation of the L. of N. : Consul POLI.

International Institute of Agriculture : M. LOUIS-DOP, Vice-President ; Prof. BRIZI, Secretary General ; M. RAY, Chief Technical Service ; Prof. TRINCHIERI, Executive Technical Service.

Child Welfare Committee of the League of Nations : Dr. DALMAZZO.

International Commission for Education by means of the Cinema and Radio : Mme DREYFUS-BARNEY.

Permanent Committee of the International Savings Institute : Marchese DE CAPITANI D'ARZAGO ; the Hon. F. FACCHINETTI, Deputy ; Dr. REINHOLD HERMANN, Señor TRIGO MEZQUITA ; Prof. RAVIZZA ; Dr. MASIA ; Dr. DUTILH ; Mr. POSPISIL ; Mr. KRUG ; M. LEBERT ; Mr. LAMBERT ; Mr. EVANS ; Dr. VAN OGTROP.

Committee of Accord among the Great International Associations : Mme DREYFUS-BARNEY.

Women's International Council : Princess CANTACUZENE ; Mme DREYFUS-BARNEY.

University of International Relations of California : Mme DREYFUS-BARNEY.

American Institute of Cinematography : Mme DREYFUS-BARNEY.

International Commission for Improving Rural Life : Mr. DE VUYST.

- International Commission for Education at Home* : DE VUYST.
Catholic International Cinema Bureau : Canon BROHEE.
Congo Catholic Missions : The Rev. MISSON.
International Missionary Council : Mr. MERLE DAVIS.
International Federation of Women, Professionals and Artists : Prof. CASTELLANI.
International Federation of University Women : Dr. GRASSI.
Universal Alliance for International Friendship among the Churches : The Rev. FAVA ;
 Mr. GAY.
International Alliance for Women's Suffrage and Civil and Political Action : Signora AL-
 FERAZZI BENEDETTINI.
International Association of University Hospitality : Prof. DOMPÉ.
International Union of Women's Catholic Leagues : Miss HAWKS ; Prof. DALMAZZO.
International Federation of Catholic Alumnae : Mrs. BRENNAN ; Miss GANNON.
International Conference of Association of War Veterans and War Wounded Soldiers :
 M. BERNE DE CHAVANNES.
International Boy Scouts' Association : Major A. WALEY.
Catholic Union of International Studies : Prof. DE REYNOLD.
Y. M. C. A. : Dr. SIBILLE ; Signora SIBILLE.
International Union of Assistance for Children : Dr. GAETANO.
International Union of Associations in favour of the League of Nations : Dr. MINOZZI.
International Bureau of Secondary Instruction : The Hon. R. RISPOLI.
International Education Bureau : Fräulein SCHATZMANN.
Jewish Association for the Protection of Girls, Women and Children : Mr. COHEN.
*Advisory Commission of the League of Nations for the Protection and Welfare of Children
 and Young People* : Mr. COHEN.

RESOLUTIONS ADOPTED BY THE CONGRESS

Ist SECTION

TEACHING

1st Commission. — Methodology of Instructional Films.

The International Congress of Educational and Instructional Cinematography, having examined the question of the use of the school film, states as follows :

1) that the film should be considered as a didactic auxiliary of the greatest importance, to be used for all subjects for which it is suited, taking into account the particular character of each subject and the degree of development of the pupils ;

2) that no subject of whatever nature need be excluded a priori from projection, either by slides or motion pictures ; but that if the film is ordinarily used for scientific teaching according to the nature of the subjects, it should be used with great care ;

a) *that for civil, religious, artistic and literary history only the word of the teacher should be used for the logical and continuous relation of facts, to build up the different circumstances and conditions, bring out the characters, illustrate the psychological motives and lend to the narrative the strength of moral, national and human suggestion and of ideal aspiration ; that, in view of the importance of religious feeling in the spiritual evolution of the child and of the importance of the use of the school film and considering, on the other hand, the difficulty of producing films suitable to be used for the teaching of religion such films should be treated with special care and the cooperation and the approval of the responsible authorities should be sought beforehand ;*

b) *that in mathematics, a subject in which the film could be used for the inculcation of certain notions or for the study of useful technical applications, it is of the utmost importance to develop the faculty of abstract and clear reasoning ;*

c) *that for the teaching of modern languages, films or slides may be usefully employed, for the elementary study of languages and to make the pupils acquainted with the country where the language they study is spoken ;*

d) *that when using the film as a visual aid one should consider the frequency and the duration of the projection, according to the limits imposed by the physiological and psychical possibilities of the children in the different stages of their development.*

As to the methods to be used for school films, the Congress states :

1) *that the use of the cinema should not interfere with the educational influence of the teacher, nor with the effect of his words. It is he who should put the questions, explain, comment, inspire and direct the activity and the response of the pupils ;*

2) *that consequently, the teaching film should not be sound or talking, but a silent film in which the commentary is made by the teacher except where the sound or talking film may usefully complete and strengthen the visual impression ;*

3) *that the use of the film should not induce a passive absorption of rapidly succeeding scenes, but that it should be used to stimulate the activity of the child in every kind of scholastic work ;*

4) *that during the projection of the school film the teacher should have the opportunity of intervening, in order to illustrate points which require special explanation and that he should take into account the fact that lantern slides are often very useful, either by themselves or together with motion pictures ;*

5) *that the subjects to be used for school films should be part of an organised didactic plan, which has been previously studied by pedagogues and approved by the school authorities in accordance with the school curriculum and which may be modified according to new possibilities which the use of the film presents.*

As to the question of organization, the Congress states :

1) *that school films should always be made from a didactic point of view and with the close cooperation of the teacher ;*

2) *that all teachers, either elementary or secondary, should be trained, technically, psychologically and didactically, in teachers' colleges or by special courses, in the use of the projection equipment and of the school film ;*

3) *that every effort should be made in order that every class have its projecting apparatus and every secondary and elementary school, or at least, every schools centre, the necessary material, either for motion pictures or for lantern slides.*

2nd Commission. — Scientific Cinematography.

The Congress,

having made acquaintance with the publication planned by the Institute for Educational Cinematography of an Encyclopedia of medical and surgical films, for which purpose special committees have been created in many countries to determine the scientific material suitable to be filmed for the use of students, physicians, post graduate schools and hospitals, makes the following resolutions :

1) *that medico-surgical committees be established in other States, and that the Cinema-Surgical Encyclopedia may as far as possible be an international expression of the progress attained by surgery ;*

2) *that the Institute should continue the work already begun of preparing international catalogues of scientific films and that the official committees for scientific films should cooperate to this end with the I. I. E. C., so that the work of cataloguing may be complete and of uniform system, such as to meet the requirements of science and technique ;*

3) *that similar initiatives be undertaken as far as possible with regard to those branches of science in which such initiatives are likely to prove most useful, by creating special scientific committees which should have as their only purpose the study of the application of the cinema to scientific research and to the development and improvement of scientific teaching ;*

4) *that the Hygiene Section of the League of Nations should collaborate through a suitable accord with the I. I. E. C. both with regard to the Encyclopedia and any other projects for assuring propaganda, by means of the film ; of the principles of hygiene,*

5) *that film producers should take due account of the output of scientific films, keeping in close contact with the scientific world through its experts together with the cinema technicians ; each in his own field should make the largest number possible of scientific pictures for use not only in the institutions interested but also for the mass of people who frequent the cinema ;*

6) *that cinema exhibitors throughout the world include in their programmes the projection of scientific films together with educational pictures and that the governments of the various states, by means of suitable legislation and fiscal relief, encourage the projection of such films as part of every show.*

The Congress desires

that the International Institute of Educational Cinematography should initiate as soon as possible the constitution of a Film Library destined to collect the best scientific films and that the different sources of production (institutes, companies and private organizations), should send a positive copy of their films to this library in order to constitute gradually a Film Archive which will assure the preservation of those films and be a centre of consultation for persons and institutions interested in viewing them.

3rd Commission. — The Cinema and Technical and Professional Life.

The Congress insists on the importance of producing films for guidance in the choice of professions, especially professions for women, as well as for training in different trades, including apprenticeship and for teaching a new trade to unemployed people.

In films of this kind, sub-titles must be short and clear and sound should be included when necessary to give the exact demonstration of the sounds and noises which are produced in the course of the work.

In the composition of text-books, account must be taken of the aid offered by the motion picture; they must recall by means of illustrations the most important points contained in the films to be used in teaching.

The Congress points out the importance of centralizing the very complex work of orientation, teaching, professional training, in its connection with the cinema, to insure the greatest economy in the production of films and their distribution; also in order to keep uniform characteristics, although differing according to necessity in the use of films in technical teaching. Central organizations of this kind could find in the I. I. E. C. the organizing centre for coordination and for practical information on everything taking place in the different nations; the I. I. C. E. could also give information on existing production, on the character of same and documentation on experiments and production made.

Thinks it necessary that technical and professional films should be extended to the prevention of accidents and that special short films might be widely used for the protection of workpeople and of the general public as far as accidents of the road, in the mountains, and at sea and first aid are concerned. These films should also be shown in public halls.

Thinks it might also be useful that the prevention of accidents should complete the technical and professional illustration in order to point out to which dangers one is exposed in a particular handicraft and in which way one may avoid the consequence of accidents.

Films on prevention of industrial accidents may be used for vocational guidance inasmuch as the demonstration of the disadvantages and dangers of a trade may supplement the information in direct connection with the psycho-technical examination of the candidates to the various trades.

For the purpose above set forth the Congress hopes that the Commission appointed by the I. I. E. C. and by the B. I. T. may devote every effort to indicate a practical programme for the production and the utilization of films concerning the prevention of accidents.

4th Commission. — The Cinema and Agricultural Life.

1) Exodus from the country: The Congress is of the opinion that the film may largely contribute towards preventing the exodus from the country by showing how the condition of country life may improve from the point of view of health and hygiene, and by showing that country amusements are much healthier than city amusements, and that family life in the country is much more intimate.

The Congress thinks that entertainment should be offered to country people capable of offsetting the attractions of city life. The rural film should give to the country worker a feeling of greater dignity by showing him that his work is in no way inferior to that of the town worker.

The film should especially insist on the intellectual side of the tasks accomplished by the country worker. This applies equally to both sexes.

2) Collaboration between filmmakers and agricultural technicians: The Congress is of the unanimous opinion that producers of agricultural films or of films concerning rural life should secure the collaboration of specialists thoroughly conversant, from a scientific point of view, with the subject in question, and familiar with the conditions of country life.

3) Educational Cinema in the country: In this connection the cinema must try to raise the standard of human dignity. It would be useful that in every country there should be an association of bodies instructed in this problem, with the view of aiding the circulation of educational films capable of raising the moral standard and of leading therefore to the improvement of the individual.

The Congress is further of the opinion that films intended for country people should not describe city life in such way as to give a wrong conception of human dignity whether it be the representation of an exaggerated luxury or by the description of vices, or by episodes showing a lowering of human conscience.

4) Agricultural Films of regional character: The Congress believes that, in order to attain the educational aims they intend to reach, agricultural films must be of an essentially original character. This does not exclude the possibilities of showing how the same production is obtained in different countries with different methods of cultivation.

IInd SECTION

EDUCATION

1st Commission. — Hygiene and Social Safeguards.

The Congress,

1) Asserts the undoubted superiority of hygienic propaganda and instruction by means of the film as compared to other systems of spreading knowledge.

2) Is unanimous in maintaining that propaganda for hygiene and social protection ought to deal with the entire question of the defence of the race, that is, by the propaganda of maternal and infant welfare, the physical training of youth and its preservation from social evils to the propaganda which deals particularly with the various social aspects of hygiene training; all this should be understood as having for its sole object the defence of the race.

3) declares that the efforts of public bodies and all other organisations and institutions aiming at the defence of human health and the protection of the race should be directed towards a more organised and disciplined use of motion picture projections:

a) concentrating and coordinating efforts in order to avoid a dispersion of energies and duplicating productions;

b) encouraging the production of such films by means of state subsidies or prizes for producers or by guaranteeing producers as to the sale of a certain number of copies ;

c) encouraging the production of films satisfying the requirements that have to be met and consequently planned by those who are in close daily contact with the needs of hygiene propaganda and social safeguard work. The collaboration of technicians will be required for the production of such films so that the pictures do not fail in their purposes, owing to the fact that they do not respond to scientific requirements ;

d) taking into consideration that if the hygienic teaching film must satisfy didactic and pedagogic requirements in the same way as other teaching films, the hygienic propaganda film must have literary and social bases. In any case it must be understood that the logical development of a subject must be capable of directly interesting the masses and through persuasion, suggestion and emotion, capturing the imagination of the people, and have thus useful effects on the care which people should take of their health and that of their families, and of society in general ;

4) Is of the opinion that propaganda of a statistical nature (posters, affixed notices, etc.), should as far as possible be combined with cinema propaganda, so that pictures should recall to those who see them the scenes actually seen on the screen and thus affect more deeply the mind of the people ;

5) Is of the opinion that the basis of hygiene propaganda of an international character should be the same as national hygiene propaganda. It is therefore important that there should be a centre in each country for co-ordinating all initiative in the use of the cinema in the field of social hygiene (social diseases, prophylaxis and social insurance, etc.) ;

6) Is furthermore of the opinion that the I. I. E. C. should be considered as a centre of co-ordination to which all the before mentioned national organizations actually existing send in all details referring to their work in connection with propaganda and visual instruction. They should also, in the opinion of the Congress, describe in full detail the subjects treated in their films, the experiments carried out and the various means used for projection in small centres (travelling cinemas, etc.).

They should also make known the results of any of their experiments and enquiries, so that the I. I. C. E. may issue a publication annually on the subject of hygiene propaganda. Such publication ought to contain the detailed catalogue of all films produced or about to be produced which, owing to the convention for the suppression of customs barriers, may lead to the exchange of films between different countries ; it should contain also the list of all those institutions which interest themselves in propaganda by means of the film for hygiene, etc.,

with regard to the subjects of the films in course of production, it is requested that the I. I. E. C. should make these known as soon as possible as they come to its own knowledge, and that this should be done through the Institute's periodical the Review or the New Bulletin.

7) States that the Institute could greatly facilitate the work of international collaboration by means of :

a) the utilization, in the international field, of films which, having a definitely scientific character, could very well be produced equally successfully in countries of a different mentality ;

b) the systematic documentation of everything done in all countries to elevate the hygienic and social level of the masses ;

c) the spreading of results of experiments made in other countries in order that the most suitable type of programmes for each country may be determined ;

d) the production of films of a true international character by means of scenes taken in different localities both to testify to the universality of the evils which we must fight and also to allow the widest possible distribution of the means of propaganda ;

8) Requests that the interpretation of the Customs Convention should be extended to apply to those films of a recreational character obviously having for object the propaganda for social hygiene and prevention ;

9) Believes — in the matter of production — that short films may be either silent or talking, and that those which are clearly of a propaganda character destined for localities where the cultural level of the masses is not sufficiently high to follow talking comment, should be preferably in silent editions helped out possibly with comment from a lecturer ;

10) Points out the great utility of the film in the matter of anti-venereal propaganda and urges a wider production and diffusion of general propaganda films to be projected also in public cinemas and films of special propaganda to be projected before certain categories of persons ;

11) Considering that workmen's accidents must be regarded in many cases as psychological facts :

that therefore a greater development in the study of psychological technicology should be made in order to understand better the individual in regard to his work ;

that to create in the mind of the workman the idea of defence against accident and to facilitate as well work of scientific research and study the cinema offers the best possible methods compared to all others in use to-day ;

that, for this purpose the film can be limited simply to documentation and to technical and scientific research, or it can seek even in comedy or dramatic form which may respond better to the mentality of the working public the motive force which can move and instruct at the same time ;

proposes that industrial organizations and national and international institutions, which are engaged in the problems of work, make a wider use of the cinema in their propaganda against industrial accidents ;

that they study those types of films which may prove best suited to different kinds of work in the fields of industry and agriculture ;

that they work to develop such activity in industrial and agricultural fields and in every other field where it may contribute to the popularization of scientific, social and human principles.

That such activity should be co-ordinated through the work of the Institute of Rome, so that films for demonstrating the prevention of accidents and first aid can, by their character, become a useful instrument of propaganda likely to obtain the widest possible international circulation.

2nd Commission. — Popular Education.

The Congress,

on the relations between the cinema and popular education, has taken the following decisions :

1) Documentary Films : *The producers of documentary films should observe the greatest exactitude and the most scrupulous objectivity as to the historical, as well as the geographical and the ethnographical truthfulness presented in the films produced by them. The same objectivity should be observed in the arrangement of programmes.*

2) Films dealing with religious subjects : *In films dealing with religious subjects, the principles of religion should be respected and be represented with the most scrupulous exactitude, this applies also to the representation of ceremonies and symbols.*

3) Films presenting some political and philosophical character : *Ceremonies and manifestations of philosophical and political character whether in the past or present time, must be treated with the greatest respect and exactitude.*

4) Amateur Clubs : *It is to be wished that the very efficacious activity, for the formation of public taste, of amateur clubs, be directed more and more towards the diffusion of films presenting a real value from the point of view of culture, and that such clubs be ready to undertake the exchange of such films from nation to nation. To this end, the I. I. E. C. should take care to maintain and develop its connections with amateur clubs and, according to the means at its disposal, should promote the creation of new clubs.*

5) Popular Arts : *The International Educational Cinematographic Institute will undertake the study of the means through which it will be possible to establish a collaboration with the International Commission for Popular Arts and the national commissions which have been formed in connection with same, for the recording by films of different aspects of popular arts.*

6) Demography : The Congress recommends : a) *the organisation by the I. I. C. E. of the study of the best methods of presenting animated pictures on all demographic questions referring to the existence of peoples and their mutual understanding ;*

b) *the organization of practical collaboration between the I. I. C. E. and the International Statistical Union.*

7) Films on sports : *Films dealing with Physical Culture and Sports should not bear entirely on the technique of sports but should contribute to the development of the taste for physical exercises.*

8) Workers' Leisure : *The Institute will study, in agreement with those national and international organizations which are concerned with the question of workers' leisure, the best way to make use of the cinema in this essential work of popular education.*

9) International News and Events : *The Institute will examine, in association with the international organizations and the big producers, what are the best means for securing a news report of international events with the object of circulating such news in order to develop good relations between the nations.*

10) Vaudeville shows : *The I. I. E. C. is asked to use its influence to oppose*

itself against certain vaudeville programmes of a vulgar and immoral character which are sometimes inserted in cinema programmes, thus neutralizing the efforts tending towards the education of the masses.

3rd Commission. — Social Providence and Saving.

The International Congress of educational Cinematography, having taken note of the motions adopted by the Delegates of Saving Banks and of their Associations, with the view of promoting thrift and social providence by means of the film, presents its thanks to the Delegates of the Saving Banks for their valuable cooperation and brings to the attention of the Directing Organs of the I. I. E. C. the wishes expressed by them,

decides to have these motions put up as an annex to the Resolutions of the Congress :

1) The Delegates of Savings Banks and their Association at the International Congress of Educational and Instructional Cinematography II Section, 3rd Commission *having taken note of the report on « The Cinema by the International Thrift and Providence Propaganda » presented by the International Thrift Institute : invite the Savings Banks to take advantage of the cinema in a more general and systematic manner for the development of their educational activities, and remind them that the International Thrift Institute is able to place at their disposal at slight cost the best thrift films produced up to the present in editions entirely appropriate to the country where they are to be screened ;*

also express the wish that within the ambit of every nation a close co-operation may be brought about between Savings Banks and other educational, social welfare, etc. institutions operating in the same region or city, so that thrift and providence may be systematically included in the programmes of educational screenings and in order that, in the production of films having educational aims (hygiene and social propaganda, domestic economy, agricultural propaganda, etc.), the principles of thrift and providence be included in the most convenient way possible.

2) The delegates of Savings Banks and their Associations attending the International Congress of Educational and Instructional Cinematography, II. Section, 3rd Commission, *having noted the approval of the agreement signed at Geneva on the 10th October 1933 for the exemption from customs duties on educational films, which will implicitly facilitate also the international circulation of thrift and providence films ;*

whilst heartily congratulating the International Institute of Educational Cinematography on the success of this most useful measure ;

invite the International Thrift Institute and the National Associations of Savings Banks to make the greatest possible use of the new possibilities of exchange of thrift films thus afforded ;

invite the Savings Banks and their National Associations in the various countries to arrange that this customs agreement be ratified by the competent legislative organs as soon as possible ;

express the wish that the International Thrift Institute as a specialized technical organization be entrusted with the task of giving an opinion regarding every thrift and providence propaganda film aspiring to the designation of «educational», in order to take advantage of the facilities contemplated in the above-mentioned customs agreement.

3) The delegates of Savings Banks and their Associations attending the International Congress of Educational and Instructional Cinematography II. Section, 3rd Commission, *considering the campaign for the economic education of the people which is being vigorously promoted in various countries by Saving Banks in conjunction with the educational authorities ;*

invite the Savings Banks to examine the advisability of producing films of a cultural character clearly showing the principal organs and institutions of economic life and their functioning, in particular : the function of money, of savings and of credit, their interdependence and connection with all the other branches of economy ; the anti-social and anti-economic character of hoarding, the connection existing between the economic conduct of the individual and the general economic situation (individual responsibility for the general course of economic life) ;

express the wish that these films may be produced in cooperation with persons who are experts in economic matters and cinema technique and art, that in particular they may be screened systematically in schools (in accordance with the wish expressed in N° 4).

4) The delegates of Savings Banks and their Associations at the International Congress of Educational and Instructional Cinematography, II Section, 3rd. Commission, *convinced of the vital importance of thrift education in the schools for the formation of the character and habits of the young ;*

call the attention of the Savings Banks and educational authorities to the necessity of a close, continuous and cordial cooperation between the Savings Banks themselves and the school authorities (and the teacher in particular) in order to promote the screening in the schools of thrift and providence, educational and economic educational films ;

hope that similarly to what has already been done in some countries, the savings banks and educational authorities may arrive at the production of instructive films, both of a general economic character and of a specific thrift instructional character of the type mentioned in N. 3, showing objectively the historical evolution of the forms of saving and providence, the origin, development and socio-economic function of the Savings Banks aiming exclusively at public utility ;

recommend that the possibility be considered of producing alongside of standard size thrift educational films, contemporary editions of the same film in reduced size, to be used exclusively in the schools.

5) The delegates of Savings Banks and their Associations attending the International Congress of Educational and Instructional Cinematography, II. Section, 3rd. Commission, *having ascertained the encouraging experiences had, partic-*

ularly in France and Italy, in the execution of educational screenings in country centres by means of travelling squads equipped with portable apparatus (projector, loud speaker, microphone for lectures, etc.), systematically visiting all the agricultural centres of a region or of the whole country and screening films every day in the schools and in the evening before the public ;

invite the Savings Banks.....

to consider carefully this new effective possibility afforded for the education of the country population, and to promote, if necessary, agreements with the national or local committees of educational cinematography, hygiene, social propaganda and the like interested in the undertaking, for carrying out this programme ; in particular, they point out the importance of thrift and providence in the life of the country-dweller, and in the problem of "Back to the land".

6) The delegates of Savings Banks and their Associations at the International Congress of Educational and Instructional Cinematography, II. Section, 3rd. Commission, recommend to the attention of all Savings Banks and other social institutions the movement which is becoming evident in every country on the initiative of governments themselves, tending to facilitate or render compulsory the screening of educational films at public shows, in order that thrift and providence films may also occupy a place in these screenings in keeping with the social principles they promote.

7) The delegates of Savings Banks and their Associations attending the International Congress of Educational and Instructional Cinematography, II. Section, 3rd. Commission, considering the great usefulness that would be acquired for their educational activity by the production of a great film destined for the big public, namely for screening at public entertainments, but inspired by principles of thrift and providence, in which however, the educational aims are not so evident as to make the propaganda tendency of the plot too conspicuous — a film which, on account of its intrinsic beauty and artistic value would be implicitly assured an international circulation like any other theatrical film — considering moreover the importance of the expense which could not be borne by Savings Banks or Savings Banks Associations taken individually ;

expresses the wish that the largest Savings Banks in the world join forces in this undertaking, through the International Thrift Institute, by making a financial contribution to the execution of the project. The contributions would then be made good by the sale of copies of the film in the various countries.

8) The delegates of the Savings Banks and their Associations at the International Congress of Educational and Instructional Cinematography, II. Section, 3rd. Commission, after studying the propositions tending to the development of thrift by means of educational cinematography, have noted that unfortunately a great number of visual feature films are dealing with subjects inclined to arouse, in young people especially, a taste for wasteful expenditure and luxury ;

and express the wish to see the Congress call upon all film producers and public authorities so that some action be taken in order to improve these general conditions.

4th Commission. — The State and Cinematography.

1. — ORGANIZATION OF NATIONAL INSTITUTES FOR EDUCATIONAL CINEMATOGRAPHY.

The Congress, *recognizing the necessity of a systematic and constant collaboration of all countries and authorities interested in the work of the International Institute of Educational Cinematography, and in order to obtain a complete documentation and to organize the exchange of experiences and materials which may be used in connection with educational and instructional cinematography ;*

Requests the I. I. E. C. to approach governments and boards of education with the view of organizing national institutes of educational films, in the countries where they do not exist, the International Institute in Rome serving as a link between the different national Institutes.

2. — PUTTING INTO EFFECT THE CONVENTION CONCERNING THE FREE CIRCULATION OF EDUCATIONAL FILMS.

The Congress,

Recognizing the great interest presented by the putting into effect of the International Convention for the free circulating of educational films signed by twenty-four States.

Requests the States that have signed the Convention to ratify it as soon as possible and those who have not yet signed, to do so.

Asks the National authorities concerned to use the means at their disposal to see that the catalogue of educational films, as mentioned in Art. 7 of the Convention, be established according to the instructions furnished by the I. I. E. C.

3. — The Congress expresses the wish *that the putting into effect of the International Convention for the free circulation of educational films be facilitated by the institution, as soon as possible, in every country concerned, of an office responsible for the delivery of certificates vouching for the educational character of the films at the moment they enter and leave the country.*

4. — The Congress again draws attention *to the fact that it would be of great interest to obtain by appropriate means the inclusion in every programme of an educational or documentary film.*

5. — INTERNATIONAL CATALOGUE.

An international catalogue cannot and should not be published in book form, owing to the constant additions and suppressions ; the catalogue, which should be completed by the International Institute, should be based on a card system and published periodically in accordance with the rules of classification generally used.

The Congress proposes that in the International Catalogue be classified only those films the conservation of the negatives of which is guaranteed by the country of origin of the film itself.

It is to be desired that the International Institute will furnish the following information to those who are trying to utilize films for educational and instructional purposes :

1) *Subjects treated, including an annotation of the exact content of the film ;*

- 2) *The different size in which the film is realized ;*
- 3) *Complete title ;*
- 4) *Year of its production ;*
- 5) *Kinds of schools and the degree of instruction for which the film is suited (considering age of pupils) ;*
- 6) *Scope of the film (education, research, instruction, teaching of art, educational entertainment, propaganda) ;*
- 7) *Kind of production (documentary film with studio shots, microcinematography, Röntgencinematography, trick films) ;*
- 8) *Total length of the film and of the picture, titles excluded ;*
- 9) *People responsible for the production of the film and censure : a) authors ; b) producers ; c) distributors ; d) exhibitors ; e) editors ;*
- 10) *Silent or sound ;*
- 11) *Sprocket placement ;*
- 12) *Inflammable or non-inflammable.*

Films calculated to favour the idea of the protection of animals should be included in a special classification in all catalogues of educational films.

6. — COLLABORATION BETWEEN THE TEACHER AND THE TECHNICIAN FOR THE PRODUCTION OF EDUCATIONAL FILMS.

In order to answer the purpose an educational film must be perfect from a pedagogical as well as from a technical point of view.

These films should be produced with the collaboration of the teacher, of the technician and the expert in the subject treated.

The expert will have to answer for the exactitude of the subject, the teacher for the suitability of the film for school use and the technician will have to see that the film be produced in such way as to fill the requirements of both the expert and the teacher.

7. — CENSORSHIP.

General Principles : The Congress wishes to underline the fact that the problem of film censure from the point of view of the protection of children and young people is a matter of serious concern for all governments. From the reports the representatives of all Nations have presented to the Congress, it is evident that this concern is increasing constantly.

In this connection, most countries have thought it necessary to establish two kinds of censure for young people.

It is to be desired that the I. I. E. C. should study the methods followed at present in the different countries with the view of formulating a standard type of rule likely to be generally adopted, taking into due consideration the views of each Government.

Provisions for enforcing censorship regulations : The Congress points out the importance of associating qualified women to the work of the Commissions appointed for the control and censorship of films.

The Congress is of opinion that in case there should be no provision for this particular censure, measures should be taken so that special halls be provided for children and young people and special suitable programmes organized which will not endanger the morals of youth.

5. *Commission.* — *Techique.*

(Draft resolution submitted to the Congress by the Bureau on the proposal of several delegations).

The International Congress of the Educational Film,

Convinced that unification of the sub-standard width film will prove one of the most efficacious means for encouraging teaching by the film and more generally the use of the educational film.

Seeing that the discussions on this point which have been proceeding for a number of years have not yet led to an accord among the group of interested producers.

Notes with satisfaction the declarations from which it results that there is a sincere wish to arrive at an understanding and that the efforts already accomplished, should be encouraged.

Begs the direction of the I. I. E. C. to propose and organize a meeting of representatives of the interested groups to nominate persons to take part in this meeting and to recommend the subjects and method of work which will contribute to this end.

The Congress asks the directing body of the Institute, and more especially its Technical Committee, to take all the necessary dispositions so that the solution hoped for should be attained before August 1st, 1934. In the meanwhile, it is to be wished that the governments or the responsible scholastic administrations will abstain from any decisions liable to anticipate the general decision.

IIIrd SECTION

THE CINEMA AND THE LIFE OF THE PEOPLES

PROBLEMS RAISED BY THE CINEMA IN CONNECTION WITH DIFFERENT MENTALITIES AND CULTURES.

The Congress,

recognizes the great importance of the problems raised by the diffusion of films among peoples of different mentalities and cultures ;

considers that it is essential to make provisions so that the films to be distributed in different countries or regions should not exert a pernicious influence in propagating from one country to another wrong appreciations of the characteristics of different civilisations ;

considers on the other hand that the task of the cinema, in the face of problems of this kind, must be the promotion of the development of the culture and the conservation of the traditions of the peoples concerned ; at the same time, the cinema must favour intellectual exchanges between the various peoples, and further their mutual understanding ;

takes note of the reports presented by the Institute whereof it appears the inquiries which are now being carried on have already given some very interesting results ;

expresses the wish that these inquiries be pursued and that a large publicity be given to the results obtained through them ;

fully appreciates the valuable cooperation offered, especially that of teaching missionaries, as well as that of lay organizations having social and scientific purposes; considers that these collaborations must be accepted and encouraged and expresses the wish that a close and continuous connection be established between these organizations and the I. I. E. C.

PRESS AND CINEMATOGRAPHY.

The Congress,

considering that any effort in the international field such as the one pursued by the I. I. E. C., in order to reach its full effect, must be assured of the largest and most generous cooperation on the part of the Press;

considering the influence the Press and the Radio have proved to have on the formation of public taste and on the orientation of public opinion,

calls upon the cooperation of the Press and of the Broadcasting organizations to support actively the work undertaken by the I. I. E. C. so as to favour the attainment of the aims pursued by the I. I. E. C.

ENCOURAGEMENTS TO BE GIVEN TO THE PRODUCTION AND THE DIFFUSION OF FILMS DEALING WITH SPORTS.

The International Congress for Educational and Instructional Cinematography; *having recognized the usefulness of encouraging films bearing on Physical Culture and Sports;*

having considered that the Olympic Games of 1936 may offer the occasion for the production and the diffusion of films of this kind;

suggests to this end the organization of an international competition for films dealing with sports; this competition to be organized through the I.I.E.C. for the Autumn of 1935.

In order to carry out this plan, the Congress takes the liberty of suggesting to the International Committee for the Olympic Games, that on the occasion of the Olympiad to be held in 1936 a gold medal be assigned to the best film on sports, in the same way as the same Committee has done for the best book on sports;

recommends to the delegates representing at the Congress countries having also representatives in the Olympic Committee, to inform such representatives of this suggestion in due time, that is before the meeting which will take place in Athens on May 8, 1935.

The Congress wishing to express to the Head of the Italian Government its deep appreciation of the interest always shown by him for Physical Culture and Sports, convinced that his high patronage would greatly help towards the success of this initiative respectfully hopes that he will kindly take an interest in this.

GENERAL RESOLUTION ON THE INTERNATIONAL FUNCTION OF THE CINEMA.

The Congress declares that the essential object of its work is to emphasize the influence of the cinema on the moral and intellectual formation of the peoples as well as on the development of a better understanding among them.

The Congress considers that this educational function of the cinema entails a heavy responsibility on the part of the authors, producers and exhibitors of films, and more generally on any authority, group or person, responsible for the diffusion of films.

The Congress considers that an entirely free and unencumbered circulation on the largest possible scale, of educational films from one country to another, remains one of the best means to reach the goal of international amity and understanding. In this connection the Congress considers that the Censorship and Customs as well as the administrative regulations, must consequently be drafted in such a way as not to interfere with the application of this principle.

The Congress, however, considers that suitable censorship and administrative restrictions must be put into effect in order to prevent the diffusion by unscrupulous producers and distributors of films likely to arouse animosity between Nations.

The Congress wishes most sincerely that the governments take in the future all possible measures to encourage the diffusion of unbiased and impartial films, and put a check to the circulation of those showing prejudice and negligence in this respect.

In order to put this recommendation into effect, the Congress proposes to the International Educational Cinematographic Institute, and more especially to its Consultative and Technical Committee working jointly with the Organisation of Intellectual Cooperation and its Paris Institute, the following measures :

1) To call the attention of the Governments to the international importance of the cinema and its use as a means to further international understanding.

The Governments might be requested to take suitable measures either in their own countries, or by means of international agreements. Consultations of experts and preliminary studies might facilitate the preparation of the texts to be eventually submitted to the Governments.

2) To promote "gentlemen agreements" between producers and also seek their collaboration in order to encourage the production of films conceived in a spirit of impartiality, and presenting a real intellectual value, and likely to contribute to international understanding with the I. I. E. C.

3) To gather and classify by means of the national committees or institutes corresponding with the I. I. E. C., already existing or to be founded, all the cinematographic documentation capable of illustrating the material and spiritual life of the different peoples.

4) To this end, to establish all the necessary contacts with the governments, institutions and international associations concerned.

YOUTH AND THE CINEMA.

Considering the growing development of the cinema which consequently results in the increasing participation of childhood and youth not only in performances especially organized for them in schools and parishes, but also in public performances ;

and that this situation may produce dangerous effects especially in regard to the health of children and young people, unless special precautions are taken in the interest of youth ;

and that the cinema can at the same time exercise a deep impression on the senses and on the imagination of children or young people, and thus constitute a very powerful means of moral influence but also a very serious danger.

The Congress states :

a) From the point of view of hygiene and considering that precautions are all the more necessary if the spectators are young, it is indispensable to assure sufficient

cubic air space in the halls; that this air be changed ; that the spectators be placed at a certain distance from the screen in order to avoid visual fatigue ; that on the same principle every means be used in order that the light should not tire the eyes ; that films having been used too much should not be screened ; that projections in schools should cease in case of epidemics ;

the admission of children to cinema performances at a late hour and under conditions which may induce nervous fatigue and lack of sleep which may prove prejudicial to their health should be prohibited ;

b) From the point of view of safety. *That every measure may be taken to avoid panic and the catastrophe which may easily result with a public composed of children in the premises : facilities to reach the doors, the equipment of the projection room and the fire escapes, as well as the necessary proportion of adults to assure discipline and order ;*

that the necessity of the use of non-inflammable films be enjoined for public performances where a majority of children and of young people is gathered and that, if possible, this obligation be extended to those performances to which children and young peoples are admitted ;

that at any rate obligation to use non-inflammable films be strictly imposed in all the cinemas where all the measures of safety may not have been taken to provide against possible fires and possible panics.

c) From the point of view of the intellectual and moral formation of children and young people : *That the educational cinematography should help at the same time to give a more exact knowledge of life, in its complexity and its richness, and to develop in children the qualities of intelligence and character ; that anything likely to result in mental passivity, a superficiality of knowledge, a lack of concentration, a tendency to inattention should be avoided ; that the use of the cinema should be directed less towards knowledge than towards developing the habit of observation and imparting personal reflection ;*

That one should try to develop in the child respect and desire for truth ;

That on the other hand, for entertainment performances as well as for the demonstration of films of a purely educational character, one should avoid showing children and young people any films which may through their composition and their rhythm, disturb or spoil their artistic sense ;

That it should be suggested to cinema owners to introduce in their programmes a certain proportion of educational films besides spectacles purely educational ;

That following an understanding established between the producers and the representatives of either public authorities or organizations dedicated to education, programmes should be established for families, on certain days and under certain conditions ;

That, in important centres where such special programmes are possible and keeping in view the importance of the whole family being present together, it should be possible to foresee the provision by cinema owners of special programmes for children and young people ;

That in any case efforts must be made in every country to forbid the presentation of any subject encouraging cruelty, crime, or immorality, as well as anything which may harm the efforts directed towards civilization and better understanding among the peoples.

The Congress calls the attention *not only of the public authorities, but also of all those who are interested in the moral formation of children and youth, to the necessity of encouraging the production of a greater number of educational films, and inducing famous writers to compose scenarios calculated to strengthen family life as well as those moral forces which are the very basis of society;*

Especially as far as rural communities are concerned, and in order to offer to the population the attraction of moving picture projections, and thus help in the struggle against rural exodus, and for the defence of the moral health of the population ;

a) *That in order to offer to country people the entertainment they need, a methodical activity be organized for the development of rural cinematography, and that more particularly the methodical organization be formed of distributing centres for educational and entertainment films ;*

b) *That a certain number of films should have as object the distribution of useful information for the benefit of rural populations, as well as the illustration of the social importance of rural life ;*

c) *That great care be given to the choice of entertainment films, which should have a large place in every programme, but that films giving a wrong illustration of town life showing not its difficulties and its real dangers, but only its artificial pleasures, should be prohibited.*

The Congress considers that the institution in all countries of a special Committee of censorship of films for children and young peoples is most desirable. In such a Committee, a special place should be given not only to educators properly speaking but also to the representatives of the organizations which are actively connected with the education of children and youth and more particularly to fathers and mothers. These Commissions should not limit their activity simply to publishing lists of films to which children and young people could be admitted ; but in order to help the work of those who organize the programmes either for public cinemas or for parishes, these lists should give some indication as to the moral tendencies of these films, and as to their best possible adaptation to the intellectual needs of different ages and different classes of peoples.

Schools should be encouraged to teach photo-play appreciation to all pupils. Parents also should be enlightened regarding the influence of motion pictures.

In this respect, and as a conclusion to the international inquiry begun by the I.I.E.C. on the systems of censorship now in force in different countries, the Congress recommends the drafting of a standard type of regulation which could be adopted in the different countries, considering possible modifications, which may be required to adapt it to suit the different mentalities and cultures.

The Congress states that the action to be exercised in behalf of children and adolescents should be not only of a preservative and somewhat negative character, but that it ought to be at the same time constructive. The film, like all scientific inventions, should not be merely harmless, but should be useful. It ought to contribute to the harmonious development of healthy and clean entertainment, to the diffusion of all such ideas as may guide young people towards the ideal of a higher life, of a large comprehension of international friendship and understanding.

CINEMA AND TEACHING METHODS

BY

Giovanni Calò,

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General Considerations.

THE utility of the cinema in the school no longer constitutes an argument for discussion. It is accepted there as is its indispensability in modern civilized life. The motion picture represents one of the most potent means for satisfying two characteristic needs of our society; that is, to shorten distance as much as possible, both materially and morally and to render accessible in the briefest interval of time possible the greatest number of objects, aspects, etc. of human life to the greatest number of persons.

If we recognize this fact, we shall easily understand that the cinema is not a more or less amusing invention capable of various new and original applications, but is one of the necessary products of the development of the human spirit, and corresponds essentially to the rhythm of such development. It supplies a unique means for illustrating certain characteristics of our contemporary civilization and assists us in arriving at higher levels of existence of which we have today only a very approximate idea. Its utility becomes discussible only when its importance is unduly exaggerated in comparison with older methods of progress. Such exaggerations consist for instance in considering the cinema superior to the book as an instrument of culture and civilization as Léon Bourdel did, although with some reserves, in the *Ère Nouvelle* of February 1934. People who do this forget what is the essential characteristic superiority of the book and verbal expression in general. It lies in this that it first of all presents things, images, abstract truths, events, states of mind, etc. through an elaboration

and a logical, minute and precise articulation or an inexhaustible flux of fantastic movements, colours and emotive tones, such as can result only from the virtue of the word, and the life of the spirit reflected in that transparent, varied, and infinitely supple instrument. The second special characteristic of the printed word is that it can accompany man everywhere, in all circumstances and moments of his life, in public and in private, when travelling or among the solitudes of the mountains or the desert, at school, or in bed. The omnipresent intimacy through which the book or the newspaper can truly become man's inseparable companions is a privilege which belongs solely to printed matter. There is also the fact that in this way inestimable treasures of human thought, which would otherwise disappear for ever, are preserved for us and could be preserved in no other way unless we let our fancy run so far ahead as to imagine motion picture reproduction of texts. Fortunately, it is unnecessary to have recourse to exaggerations of this kind to exalt the cultural and educational value of films. If, as I have said, we see in the motion picture an essential and historically necessary and indispensable instrument of human progress, we must be convinced *a priori* that it is destined to have an equally useful and indispensable function in the school.

We must, however, have a clear and definite idea of the way in which the cinema can, owing to its special nature, be applied to didactic purposes, in order to understand what we can expect of it and to perceive with what other means it must be integrated or corrected in view of the educational aims

which no school can ever set on one side, however technically or socially powerful may be the means placed at its disposal. What is important from the didactic and educational point of view is the greater or less wealth of content, that is the greater or smaller number of contacts with reality, the greater or less quantity of culture which one or another teaching method can offer the school, and still more especially the way in which it can render the spirit active and assist in its integral and normal development. The cinema when considered in its scholastic applications should be regarded from these points of view, and especially from the last mentioned point of view.

To be sure, there is a by no means negligible importance for the first of the foregoing considerations to be drawn from the fact that, independently of the grade and the way in which the film engages and develops the subject's faculties, a determined means, if applicable to the school, has an educational value of its own when it has become a universally diffused instrument of social life. The school, taking it up and using it, carries out a work of adaptation to surroundings, and puts itself in union with society, which is to say that it proposes to reach within certain limits and in a given way, a formative intent consisting in preparing the child for social life and making it capable of understanding the forms, means and spirit of this social life. It is still true that the predominant criterion of evaluation cannot but be that of the efficacy of the didactic means the cinema has or is capable of having on the subject and its spiritual capacities.

With regard to the first point of view, that is the quantity of cognitions and contacts with reality distant in time and space, or commonly removed from the general sphere of action which the motion picture is able to offer the child, there is no possibility of doubt or difference of opinion on the question of its value.

Then comes the second point of view.

What objections can be made from the psychical and pedagogical point of view to the cinema? Accusations against it have not been lacking. There is the one made by H. M. Fay (*Le Cinématographie et l'enfant* in the review *Éducation* for July 1933). Naturally criticisms of film themes which are unsuitable for children or have a corrupting tendency do not enter into discussion. We are speaking of the cinema as cinema in its essential characteristics, which must appear and have their effect in scholastic applications.

Objections and Justifications.

The first criticism that may be made is that even when the motion picture puts before the child's sight objects which it could not otherwise have a chance of observing, the film shows it these objects in conditions that are different from those of ordinary observation. It sees the images in an artificial light, which isolates the picture from the surrounding darkness, destroying the rest of the reality and the competition or interference of any other than the purely visual sensation. This criticism applies equally to the motion picture and lantern slides, even if the absorption of the attention is greater for the former than for the latter, for reasons into which it is not necessary for the moment to enter. It may be said that while the artificiality of the luminous conditions of the *image* itself is an undoubted and apparently insuperable drawback, but without grave consequence where it is otherwise impossible to present in its concrete living aspect the fact or phenomenon, the isolation of the image from all other perceptions, that is, practically speaking, from the spectator's real surroundings, has an aspect that is both useful and harmful at one and the same time. It is useful inasmuch as it draws all the attention to the object which is intensified and amplified by the projection, thus rendering the observation easy. It is harmful inasmuch as the spirit tends in this way to lose its aptitude of directing the attention

and voluntarily isolating objects from the multitude of images surrounding them, that is, exercising its powers of observation under natural conditions.

The drawback is more marked if we are not dealing with objects outside the child's ordinary surroundings and reality but with facts and phenomena which, being perceptible in that reality of which the child forms part would be better observed in a continuity of relations and connections with things and facts constituting the surroundings and atmosphere common to them and the child. In this case, the observation would be at least for a time a referring to the subject, that is the construction of an experience around a *subject*.

One charge which is fairly brought against the film is that it disturbs the normal rhythm of time and reality with its rapid succession of images. It renders everything vastly more rapid than it really is. It contracts intervals and almost determines a kind of conventional time, which differs from normal time, and upsets the normal aptitudes for ordinary perception of time, and in this way creates a form of over-excitement and therefore nervous fatigue. Again, often enough, it does not observe that minimum of interval between images which constitutes the *time threshold* of perceptibility of stimuli, or that minimum of duration of movement of the attention from one object to another which Mager has called *Aufmerksamkeitsschrift* (step of the attention). These are minimums which vary from one individual to another and it is possible when the rhythm of the sequence is too rapid that fatigue may be set up in the spectator, incapacity to follow the images and a form of mental exhaustion. Moreover the damage is all the greater according to the youth of the spectator. Consequently we can argue that the time rhythm of the images must be made the subject of attention so that it is considerably slower than the tempo commonly used in motion picture houses.

On the other hand, it is clear that while

the fixed projection is better adapted for purposes of exercising the power and method of observation since it gives the spectator plenty of time to examine it in all its details, the film picture starts a current of images which cannot be followed by the mind in one direction only, but must be followed by the attention without repose or change of direction. Naturally enough when it is a case of presenting to the attention an aspect of reality which consists of movement and change, the drawback is an unavoidable one.

There remains, in any case, the unquestioned psychological fact of the superiority of what we may call spatial observation over time observation, that is of observation turned on what exists as a spatial whole compared with observation of what follows and changes in time. This is a fact which depends on the unidimensional character of time and the preponderant part assigned to the memory in the perception of a time whole, or rather in the reconstruction and interpretation of a series developing in time. It is self-evident that the exactness and the thoroughness of comprehension of a series of successive images, both in their reciprocal value (antecedent and consequential, cause and effect, etc.) and in the meaning of the whole which they help to form, will be all the greater in proportion as the attention has had the opportunity of fixing itself on the static image of objects or forms constituting the ultimate phases or final product of the process, so that minute examination and understanding of them throw a stronger light on the process itself and facilitate reconstruction and reflective comprehension.

Advantages and Limitations of the Sound Film. Another not inconsiderable criticism which is raised against the cinema and luminous projections in general is that they throw all the effort on visual perception, that is, they assist in eliminating the collaboration of the other senses and therefore remove the observation pro-

cess from the ordinary conditions of common experience, substituting for ordinary experience a unilateral exceptional experience. It may be reasonably argued that the sound film offers and will continue more and more in the future to offer a remedy for this state of things, since it adds to the visual image the sounds and voices of nature of men and animals, and opens for the art of the screen marvellous possibilities. We must however, remember that in the use of the cinema in teaching, the addition of aural sensation can only prove practically impossible or at any rate a source of disturbance. It must be used in an extremely limited way when — as didactic requirements will often impose — the teacher's word must supply an explanatory comment to the succession of pictures on the screen. Taking it altogether, it is my opinion that the sound film — apart from its undoubted value in the entertainment, documentary and cultural fields — is destined to play a very small part in teaching proper, that is, as an instrument and aid to the lesson. I should like to insist on the opinion which is commonly held and has become almost definite, excluding sound pictures from teaching films, since they take the master's part of illustrating the images with oral comment. This kind of film is altogether too rigid and preconceived, unsusceptible of variations and adaptations. This is due in great part to the mechanical nature and unchangeable form of the sound film comment. If the undoubted advantages of the film and its wealth of detail for the scholars' minds can permit us to accept without obvious harm artificial representations which are quite outside the control of the teacher, the harm will prove very serious if the teacher's live and communicative words are not allowed to illustrate certain phases of films, adapting the explanation to the circumstances of different cases and the intelligence of the pupil, introducing personal touches and special details on which a great deal of the efficacy of all teaching depends. The film should be in-

corporated as best it can in a didactic process of a *personal* character, in a *living* relationship between pupil and teacher. Any tendency to accentuate the preconceived schematic and unalterable character of a didactic sound film where the comment that should come from the teacher is given by the loud speaker, can be nothing but a pedagogical monstrosity.

The Cine-didactic Method.

This aspect of cinema representations which discards the collaboration of the other senses leads us to consider more thoroughly the essential problem of the use of fixed or moving luminous projections in the schools in regard to the requirements of the method. For it is clear that the object placed before the child's observing faculties will engage its attention just so much more as the process of observation can be personal and one in which all the senses can take a thorough part, and with and through them the higher functions of the mind, memory, judgment, reason. It should be remembered that to inquire and explore mental situations with all our senses means remembering, comparing, judging, synthesizing and a more or less complete form of reasoning.

We cannot but admit, in this connection, that the use of luminous projections in the schools constitutes in certain respects an improvement of the *purely intuitive* method rather than the *active* method which is now in the ascendant in didactics and the contemporary school.

We do not mean to say that fixed projections or films have nothing in common with the *active method*. Everything which arouses a lively interest and a keen and wakeful curiosity forms part, *in a wide sense*, of the active method. At the same time, we should take care to observe that where it is possible to see everything, then there is less field left and less impulse is available to stir the fancy and allow it to have a free form of expression. Nor would we care to deny that, indirectly, the acquisition of rich visual experiences

and the accumulation of so large a capital of images can provide material for new combinations and constructions and the exercise of a vigorous fancy. There is no question that the possibility and the habit of translating the invisible into the visible, of connecting every mental operation with a sensitive image that is definite and precise is not the best way of satisfying that special need of children for moving freely and fantastically with their imaginations and spirits in the realm of the uncontrollable and undetermined, and of exercising their imagination at the age when it seems most inclined to require stimuli to secure its proper working.

However, it is only proposed to give a relative weight to this consideration. It is not my intention to insist over much on it in view of the various and even contradictory means which a good educational method must in practice have resort to.

What is undoubtedly true in every sense and in all circumstances is that the motion picture, especially if it becomes an end in itself, when it is not subordinated and enclosed so to speak in a teaching method which exists outside of it, and does not allow it to act alone on the child's spirit, inevitably tends to draw with it in a kind of fascination the child's interest, leaving it much less capacity for personal examination, control, self-criticism and various mental elaborations in a much greater degree than the lantern slide. What is especially and necessarily excluded by the very nature of the luminous projection is the child's initiative, its real capacity for work, its tactile and muscular experience of the object fact or phenomenon, its possibilities for "doing it", modifying it and making use of it. It is this which constitutes the essence of the *active* method, especially in the lower teaching grades, and to a certain extent and in certain forms and subjects, also in the higher grades. The thing which is presented as a luminous image becomes isolated and withdrawn from all other forms of the child's activity apart

from its purely visual activity. The cinema renders the *object* rather than the *subject* active in that it shows the mobile and dynamic aspect of reality, while the subject is rendered active only to that degree with which this mobility and changing life of the object imparts a more rapid rhythm to the contemplative and emotive activity of the subject without depriving it of active force in other respects. From this point of view, graphic or plastic representations of real objects of whatever kind have an undoubted claim to superiority since they can be handled by the child and can be compared, measured, copied, completed with missing parts or indications, combined with others and used for different purposes. This means a possibility of becoming familiar with them, an active practical intervention on the part of the child, which is a matter of great importance not always negligible in comparison with that which is evidently lacking in graphic and plastic representations of reality and real aspects of life and movement.

The essence of a really *active* method lies only in complete contact between subject and object, in the fullest liberty of the former to operate on the latter and to appropriate it for itself, both intellectually and practically.

Here too lie the most favourable conditions for a clear, full and stable record of *objects learnt*, which is assisted by what the Germans call *komplizierte Gedächtniss*, that is by the mnemonic images of the same object relative to the senses and forms of various experiences. We must realize that the motion picture determines a form of teaching which is more *contemplative* than *active* and means in substance, even admitting its new and admirable possibilities, the final increment of the intuitive phase of didactics (1).

(1) See my article "For and Against the Cinema in Schools" in the review *Vita Scolastica*, Florence, January, 1934.

Conclusions.

I think the following practical suggestions may be gathered from what has already been said, and I imagine it will not be difficult to obtain a general consensus of opinion on them.

(1) Luminous projections should not be used in schools for those objects and phenomena which can be adequately observed in reality ;

(2) Preference should be given to a graphic or plastic representation of the objects being taught, unless there is some real and distinct advantage to be gained in showing the particular reality in movement, or unless it be deemed advisable to obtain with fixed projections, special effects of the image for an understanding of the object ;

(3) The use of both lantern slides and motion pictures ought to be much restricted in elementary schools and these aids should be increasingly employed in the higher grades, while documentary films in the wide meaning of the term and pictures having a recreational-educational scope could be used with a certain frequency and periodicity even in elementary classes and in pre-scholastic institutions :

(4) In general, the use of the luminous image as a visual aid ought not to be too frequent if only to prevent the pupils acquiring harmful mental habits and submitting to hygienic disadvantages. The film should not be shown for long on each occasion of a projection, in order that it may not interfere with the teacher's regular didactic work and risk causing a confusion of the real aims of teaching ;

(5) The use of lantern slides should be considered preferable to motion pictures as an educational means for increasing the child's powers of observation when the use of the film does not become inevitable owing to the special nature of the object and the purposes aimed at ;

(6) The teacher's word should always set forth the problem which may later be illustrated by the film giving the pupil cognitions and ideas beyond those imme-

diately before his eyes. Sub-titles, explanatory comment and printed matter should not be used in the case of children ;

(7) The teacher ought to regulate the rhythm in motion picture projections, and be able to repeat certain parts, to stop the projector at will and to insert slides between the running off of the film so that the best possible advantage may be taken of the visual instruction and the most favourable conditions for the exercise of the powers of observation by the scholars ;

(8) Teaching films ought always to be made with the collaboration of teachers and pedagogues according to the grade and type of school and the educational purpose they are intended to serve ;

(9) Better than complete darkness in the projection room is a certain penumbra effect and a small illuminated zone near each pupil to enable him to take notes or read ;

(10) It is necessary to obtain with all possible means the active collaboration of the child and draw its active attention to the objects thrown on the screen such as graphs, drawings, etc. of the model of the objects shown it, rapid notes on the development of the phenomena appearing on the screen, explanations by the master, etc. ;

(11) The pupil ought always to be invited to make a verbal or written reconstruction of what he has seen after the projection and he should be held to the greatest possible precision, allowing him to take counsel and advice from other pupils. Drawings or sketches of a rough and rapid nature should also be insisted on from the pupils after they have witnessed some fact or phenomenon on the screen. This will prove a memory exercise.

It is only in this way, by demonstrating the wealth and power of suggestion of the motion picture for human culture and thought, that it will be possible to eliminate the disparity between film teaching and that ideal *active* method which is one of the essential requirements of the modern school.

THE USE OF THE CINEMA IN THE INSTRUCTION IMPARTED IN PRIMARY AND SECONDARY SCHOOLS

BY

Hubert Mahr.

THIS report deals with the organization of the scholastic cinema in Viennese schools.

A conference of the educational cinema should occupy itself, among the many other questions which arise, with that of culture films, taking into account the reports upon the conditions and development of the didactic cinema in the various countries. The advantages derived from similar comparisons would indeed be noteworthy. The teacher who makes use of the cinema, or who has the intention of doing so, finds himself faced with an infinite number of questions which he is not in a position to solve unless he avail himself of the experience of an organisation. Those who have attempted to cope with the matter on their own account, have all failed. The separate organizations of teachers who, in the different countries, interested themselves in the propaganda of the educational cinema have all, more or less, come to a complete standstill, and are obliged to devote all their energy to preservation of the work already done. Each conference therefore should be welcomed, since it stimulates interest in the movement and points to ever fresh means wherewith faith in this form of education may be strengthened.

In this report I have striven to show, in a simple and modest way, the course which we Viennese teachers have followed.

The educational cin- Vienna possesses
emas of Vienna. twenty-one cinemas
to meet the requirements of its schools.
Very few plants are installed in the single
classrooms. The collective scholastic cinema,

the organization of the didactic cinema, in force about fourteen years, disposes of a certain number of halls, situated partly in scholastic buildings, partly in buildings of the Commune of Vienna.

These halls must correspond to certain requisite demands imposed by law, and this naturally represents an obstacle to their development. In fact, it frequently happens that a school does not dispose of a hall suitable for projection and equipped with all the requisites above mentioned; or the hall is sometimes situated at too great a distance from the school. Therefore the educational cinematographic organization must insist that provision be made for a special hall suitable for projection whenever the building of a scholastic institute is in progress.

The cinemas at the disposal of the Viennese schools, can generally accomodate from 150 to 300 spectators; it is therefore possible for more than one class to assist at the same projection at the same time. The projection varies from an hour to an hour and a half in duration; if one calculates another half hour to allow for time in which to arrive to and from the locality where the projection takes place, one can say that it varies from an hour and a half to two hours.

The scholastic Council of the City of Vienna established, some years ago, that the participation of a didactic projection be compared to a cultural excursion. Therefore the children are accompanied to the cinema on days fixed by their respective teachers and the lesson is given by means of the film.

We film pedagogues are perfectly well aware that the collective scholastic cinema is not the ideal type of cinema to be employed

in schools, and that the cinema could only be rendered efficacious by use in separate classrooms.

The former is a rigid, too little mobile form of scholastic cinematographic organization. It is extremely difficult to select a programme suitable for several classes alike, unless the different classes have studied the same subjects during the same period of time. Moreover, the collective cinema cannot individualize, and it accustoms the pupil to be a passive spectator. One has sought, and with success, to remedy this, by modifying the manner of presentation. I will return later to his argument.

The financial question contributes chiefly to the preservation of the collective cinema organization and in this period of great economic depression it is comprehensible. A film that has been projected once to 200 persons is in better condition than one which has been projected ten times to 20 persons. In order that I may better explain the views which I have to propound upon the didactic cinema I will deal immediately with the

Methods for instructive projection. Every scholastic cinema should fix one day of the week for projection, the general organization agreeing as to which day. The programme of films should circulate from cinema to cinema, according to a previously arranged plan, established for a term.

Each scholastic cinema in turn must notify the schools depending upon it, of the days and hours fixed for projection. The teachers of the different classes will then have the opportunity of dividing their instructive material accordingly. The day appointed should be exclusively for *children of the same age*. Accordingly to a carefully prepared system of rotation, one calculates that the pupils would attend a number of projections varying from 2 to 4 a year.

In the last scholastic year the following subjects were projected in the Viennese scholastic cinemas :

Primary Schools (first to fourth class, pupils varying from 6 to 10 years) :

Madame Holle — Be laid, little table ! — Peregrinations of a postal packet — Country life — Communications in the big cities — Firemen — Forestry — Southern Lower Austria — The valleys of the Austrian Alps — Brick-making and house-building.

Middle Schools (from fifth to eighth class, pupils varying from 11 to 14 years) :

The child — Southern Lower Austria — The valleys of the Austrian Alps — In the insect kingdom — Look out, Asia ! (Sound film) Africa ! — Hungary — Northern countries — Wonders of the technical world — Captive animals — Hamburg — The microphone on journeys — The Mediterranean — From the tree to the newspaper.

All these films, with the exception of the sound films inserted, were taken from the archives which the Association of the Scholastic Cinema has instituted, in accordance with the Viennese Urania, under the name of

Austrian archives of instructive films. All films in these archives are of didactic character, and have been elaborated in accordance with the principles of cinematographic pedagogy, adapted particularly to the requirements of instruction in primary and secondary schools. Their substance corresponds to a limited quantity of educational material. For every film there is also a small series of about ten prints which help certain difficult parts of the film to be understood.

The teacher must provide that the film be attended at the most propitious moment, serving as basis to the lesson, and helping to deepen the understanding of certain arguments ; one can safely say that the film plays an essential part in instruction.

The importance and necessity of the teachers making advance acquaintance with the film has been fully understood by the Scholastic Council of Vienna, which has taken the necessary measures to procure for the teaching body the opportunity of drawing the best possible advantage from the cinema.

To this end, fortnightly projections have

been organized, by means of which the teachers can keep in view the material at their disposal and the forthcoming programmes. The schools which depend upon a scholastic cinema receive a bulletin published by "the Austrian Scholastic Cinema Association", which gives the titles of the films together with a brief synopsis of their contents.

This constitutes the basis of cinematographic education. It remains for the teacher to draw from it the best possible advantage by carefully preparing the pupil. The preparations should consist essentially in anticipatory explanations which help the pupil to understand the film in its integrity: in inviting comment, encouraging questions and creating doubts to be solved by the film. In this manner the spirit of inquiry is encouraged in the child and any gift of composition strengthened.

In my opinion, in order to obtain a more lasting impression, a number of questions should be put to the child, to be answered later by the film. For example, one could divide a film such as "Forest Culture" into three parts.

(1) how trees are cut;

(2) transport of the tree trunks to the plain;

(3) how the wood is seasoned.

Those questions which should be put with the intention of producing a more profound impression upon the pupils, should be as following:

(a) how do foresters work with axe and saw?

(b) where are trees pruned?

(c) how does the fall of a felled tree take place?

(d) how are tree trunks joined in constructing a raft?

(e) at what point is the river current strongest?

At what point is the river widest, narrowest?

(f) how are the trunks loaded?

(g) of what use are rafts?

The questions should not be put in a

manner which would insist merely upon the general argument, but should serve to draw the attention to certain points so as to educate and strengthen the spirit of observation. The pupils must be accustomed to this form of mental exercise by degrees; beginning with simple questions they will gradually become accustomed to solving more difficult ones.

It is therefore necessary that the teacher be well acquainted with the theme of the film and thorough acquaintance is not possible after one single vision. It is indispensable that he knows in advance those points to which he means to draw the attention of his pupils, or can so arrange that the film itself calls forth such questions. This solution would be the most desirable because such being the case, the film could be prepared according to the age and preparation of the young spectators.

Effects of the film. The effect of the film represents so far an unanswered question for the collective cinema, which has often been accused of accustoming the child to an almost absolute passivity. One forgets all too easily that a completely passive vision is impossible, since every impression on our organism provokes a reaction and a series of impressions, produced by a series of pictures in direct sequence and logical relationship. Such impressions are obliged to set thoughts in motion, by reason of the connection existing between the mind and the pictures presented. This difficulty could be overcome by repetition of the more difficult sequences of the film, by dividing the film into several parts and by first illustrating the part to be projected. Thus would complete comprehension of the separate parts be assured and in this way comprehension of the film in its integrity obtained. The obstacle of "passivity" can thus be eliminated by the interest and comprehension of the pupils.

Explanatory conferences have been left aside completely by our organization. Appeals and illustrations on this and that point, from time to time, are more than sufficient.

I am sure that I have not put forward anything new in this report. Certainly, cinematographic organization will not be identical in all countries, but inasmuch as regards the Austrian and especially the Viennese teachers, I can only say that we seek to draw the best possible advantage from the cinema and that we also strive towards the goal of projection in separate classes although the financial side of the question prohibits

us from hoping for its early realization.

Among the numerous other questions, an international conference should examine the essential one of the scholastic cinema and its principal problems. Attempts should be made to obtain international subsidies which would contribute toward scholastic cinematographic experiments which might point out the advisability of definitely following one system in preference to another.

VISUAL EDUCATION

BY

C. F. Van Nortwick.

EDUCATION is the gathering of knowledge. One way is through experience; we gain experience through our senses. The eye is the most retentive as well as the most observant organ of the human senses. This was observed early in the history of civilization when the schools of India used the sand as blackboards. The earliest records are pictures. Comenius (1592-1671) used pictures for the first time in books when he published his text book, *Orbis Pictus*. Pestalozzi (1746-1827) and Rousseau (1712-1778) used pictures. Froebel (1782-1852) developed the senses of sight and touch and employed visual aids in his famous Kindergarten. A Frenchman named Niepce made the permanent photograph in 1822.

A rapid development then followed in the photographic field with pictures and slides. Dr. Sillers in 1861 was the first to discover that moving pictures should stand still during the moment of vision. This discovery opened the field of motion pictures. Thomas A. Edison was probably the first to produce a real motion picture projector, with the use of glass plates.

George Eastman began experimenting with films in 1888 and in 1895 the first negative film stock was turned out, followed in the same year by positive film stock, and the demand has grown to millions of feet per month.

The first motion picture machine using film was invented by Jenkins and Armat and was marketed under the name of the Edison Vitascope. This leads us to the present day developments in motion pictures.

Visual education in its broadest sense embodies all forms of learning. Visual education means imaging, and for any learning to take place the subject matter must be clearly imaged in the mind of the student. Therefore, no matter which sense is appealed to when the activity is first brought to the attention of the learner the activity must become imaged before any real learning takes place.

With the above statement in mind, visual education readily divides itself into several groups, as reading, verbalism, smelling, seeing, touching, hearing, and tasting, in fact a learning unit for each sense. In

common practise the term visual education is that in connection with objective materials of teaching things that can be seen.

Visual education need not be narrowed to use of the school systems. It is surprising how few people actually read to learn during their adult life. Their source of advanced learning is through visualized objects. How many would read a poster if it were not for the interest aroused by the attractive pictures?

As a school project, visual instruction has many advantages; first, it brings into use all of the learner's senses, the object being studied in itself, or a picture or representation of it. At the same time that the object is before the student it may be read about or be told about, thus making for clear imagery through the entire sensory field.

In the first place what is invoked by the written or spoken word is quite variable and probably in most cases differs widely from the imagery or idea of the author of which the word is the expression. No amount or quality of verbal description can paint the visual appearance of beings or objects so as to invoke images which are exact likenesses of the thing being described. With this brief statement in mind, it is plainly seen that the best teaching and learning is accomplished when as many of the human senses are in use as it is possible to stimulate.

Visual aids may be used with great advantage to give a general idea, an appreciative treatment, of a field or topic which is not to be studied exhaustively.

Visual instruction may be used as a background for a new subject which is to be introduced.

We may in fact lay down the following principles:

(a) Visual aids are necessary in gaining concrete information and reviewing a series of lessons in a concrete, connected way. No other visual aid but the film can so quickly and interestingly review the whole field of previous study and through revisualization

permanently fix correct mental concepts in the minds of students.

(b) The moving picture should not be introduced in a lesson until an urgent need is felt on the part of the pupil or group.

(c) The help thus brought should explain some difficulty, clear up some obscurity, or enrich some subject matter. Only the material to meet this definite need should be introduced at this time. Any additional material only distracts and wastes time.

(d) Educational films should be short and to the point. If the film is long, impressions succeed each other so rapidly that few are fixed in the memory and the student is not called on for any mental effort of his own.

(e) To point out the best method of using visual aids, authorities seem to agree agree that the job is best done when the subject is thoroughly gone over with the class beforehand, after the subject discussion is finished. Immediately after this is the proper time for the use of films, slides, pictures, etc.

(f) If the visual aids are sufficient to take the entire class period the next lesson should be used as a test. There are many ways of testing, i.e. plus and minus, completion, multiple choice, writing of stories, special assignments, oral or general discussion, etc. These are all good and which to use depends entirely upon the subject and the teacher. But under no condition should the lesson go by without a thorough testing of some kind.

The principles of method recommended are as follows:

(1) Since education is the harmonious unfolding of all the faculties and since knowledge is received through sense impressions, the more senses utilized in conveying knowledge the better the result.

(2) The pupil must be prepared in advance for the use of materials. The pupil should become familiar with his tools and know what he is going to do before he handles them.

(3) The teacher also should be fully prepared, "three times as well prepared" as the pupil.

(4) Present the lesson so as to arouse interest to stimulate to greater endeavor.

(5) More material than can be well assimilated should not be given at one time.

(6) Utilize materials of instruction so as to develop all the faculties of the mind.

(7) Present lessons in an orderly and systematic way so as not to cause confusion or a complexity of impressions.

(8) Vary the methods of teaching and the teaching materials used, in order to utilize such methods and materials as are best suited in each instance to accomplish the purpose of efficient instruction.

(9) Dramatize the lesson, visualize it.

(10) Repetition is an important practice in memory training. Vary the method of repetition.

(11) Discussion drives home the lesson. By oral review the teacher can discover which pupils are deficient in the power of observation.

(12) Written review fixes facts in the pupils' minds.

Types of visual instruction.

There are at present several types of visual aids, those most used are: bulletin, exhibition and black boards, films, slides, maps, charts, globes, field trips and excursions, samples, collections, pictures, relics, specimens, demonstrations, dramatization, museums, sand tables, school gardens, socialized lessons as living persons. Several of the above may be used in one lesson or one may cover several lessons: the greater the number of different angles from which, the subject can be approached, the more certain it is that learning will take place. Here again the method and material depend upon the subject and the teacher.

Visual aids give many advantages, among the most important are the possibility of stimulating adequate imagery, to the point where it becomes sensory. The pupil has a chance to study the thing itself or a picture of it, and in many cases can hear or feel the

thing or even smell it, by this procedure the image naturally will be more accurate. Fast moving objects may be slowed down to a point where the movements can be studied and slow moving objects accelerated. The movie has the advantage of transporting a whole class to the scene of action so that the student actually feels the atmosphere of the setting. Slides present objects and materials in a natural state and in colours, so they may be studied at leisure from every angle.

In spite of the advantages of visual aids they still are subject to objections. All objections may be summarized under the following seventeen heads:

(1) Films cause eye strain.

(2) There are too many mechanical difficulties and projection problems, including proper wiring, current, etc.

(3) Fire hazard.

(4) Too great expense for equipment and films.

(5) Films make learning too easy.

(6) Films make superficial thinkers.

(7) Films reduce reading.

(8) Films destroy the sense of perfection in language.

(9) Films dull the imagination.

(10) Films distract from the lesson.

(11) Films tend to replace the teacher-text book method of instruction.

(12) Slides and still pictures are better.

(13) Proper films are not available.

(14) Films are inaccurate.

(15) Films are too rapid.

(16) The benefits to be derived are uncertain and unproven.

(17) There is no established method of use.

Beneficial use of films may be summed up under the following the headings:

(1) Films should be used in all branches of education.

(2) Films should not replace the teacher, but should be used as auxiliaries.

(3) Films are of proven value in the demonstration of experiments.

(4) Films are valuable in the analysis of industrial processes.

(5) Excellent results are being obtained by the use of films.

(6) Stimulate imagination.

(7) Pupils have a chance to study location.

(8) Objects may be slowed down to a point where they can be studied.

(9) Many different objects may be studied by comparison.

(10) Objective material may be brought to the class room.

The general trend in the education field seems to be to use visual as supplementary and auxiliary material in lessons that have been studied and digested wherever possible and when appropriate visual material is available. Practically all branches of education can be now supplied with worthwhile material provided the person in charge will make the effort to compile it. Some of the material must be purchased but a satisfactory amount may be borrowed for mere transportation charges. Large school systems have developed the collective plan where visual material may be borrowed free of charge.

Outside the strictly educational field, films are finding their place as studies of methods of manufacture, as means of comparison and of stabilization. Large factories are reaping a definite benefit from films as an advertising medium.

Private enterprises have come to use films as a means of preserving material they wish to use for future reference and show. Equipment at one time was complicated and quite expensive but since the use has become more general, machines have been

simplified and competition has reduced the cost to a minimum.

1 - 35 mm projector

1 - 16 mm projector

1 - stereoptican projector

1 - baloptican projector

Many of the educational visual materials are entertaining as well as educational and people are more and more coming to realize the true value of visiting far off places through the medium of the screen.

Art museums and other places of public entertainment connected with the educational field are using visual aids very extensively in the furthering of their aims.

It is not uncommon to see displayed along the streets in show windows, *box* movies advertising commodities for sale. This same machine is being used by schools, churches, business houses and many other institutions that have items of special interest that they wish to place before the public.

During the short life of the moving picture and film industry, the business has grown to such an extent that it has now some part in practically all phases of life, both business and amusement. Recent years have brought us sixteen millimeter films, stereoscopic films, colour, films talking pictures, movies by radio, animated drawings, and the latest films in three dimensions are now to be perfected.

It is very probable that, in a short period of time, daylight pictures will have been perfected so that daylight "text-books" may be used in every class room with results which are at present unheard of.

SUBJECTS WHICH LEND THEMSELVES TO TEACHING BY FILM

BY

Josef Filip,

PRESIDENT OF THE AUSTRIAN ASSOCIATION OF THE SCHOLASTIC CINEMA.

AUSTRIAN educationists who are interested in motion pictures have for some time now concerned themselves with this question. The problem of the kinds of films suitable for teaching purposes became a practical one soon after the war, when the scholastic cinema took a considerable development and a large number of cinemas were installed with the result that the need for suitable films was felt at once. Nevertheless, the demand for films could not be satisfied very easily. There was, as a matter of fact, a fairly large quantity of films available, but they were spread among a number of producing firms, and were by no means easy to come by, either because the firms in question needed the pictures as stand-bys, or because the renting price asked was too high for schools. This was the reason why the teaching faculty organized itself and founded the Austrian Association of the Scholastic Cinema 13-15 Stäbergasse, Vienna. The members of the Association at once began to look through the stocks of the renters and producers so that it was possible in a short time to prepare a list of all films suitable for schools existing in Austria. Some of the films which had been made without any thought of schools were only occasionally suitable, and often enough it was only parts of films which could be projected in classrooms.

The necessity for bringing order into this confusion and the advisability of having a system rather than leaving matters to chance, became obvious. The section of Scientific Pedagogy of the Austrian Association of Scholastic Cinemas assumed the

task of deciding in which subjects of instruction the use of the motion picture seemed useful or necessary.

The question of the possibility of using educational films was answered, to begin with, by the very subject matters themselves. The curricula of various types of schools were examined (primary, high and secondary) and after lengthy and careful discussion the subjects which appeared most suitable for cinema illustration were defined. The work received the encouragement of the Federal Minister of Instruction (Decree No. 16154) and the result was a report which laid down in a definite manner which subjects were suitable for illustration and teaching by the cinema in elementary and secondary schools and which required the cinema as a necessity.

In this report, no account was taken of the films that were actually available, but after an examination of the subjects, it was decided which films should be included in the more or less complete list of schools. The list thus agreed upon showed scholastic requirements in the matter of pictures. The Austrian Association of Scholastic Films therefore gave the list the title of "Prospectus of Necessary Films".

The object of these prospectuses was to serve as a guide for the scholastic authorities and for persons entrusted with post-graduate courses in their acquisition of motion pictures, and was intended also to draw the attention of producers to films used in schools.

In the choice of subjects to use for pictures, it will be seen that the films can be made without any special difficulties.

The prospectus of film requirements was drawn up without taking into account the effect which the pictures might have on children, since there was no documentary evidence concerning this point at the time when the list was compiled.

At the same time, the teachers belonging to the Austrian Association of Scholastic Cinemas were perfectly in agreement that the question of using films ought to be examined also from the point of view of the children. In the pedagogic section of the Association, Dr Karl Hareiter has begun a partial study of the psychological problem involved in cinema teaching.

To this end, Dr Hareiter has carried out numerous experiments and has collected the results obtained so far in a report which, together with other reports of the A. A. S. C. (Austrian Association of Scholastic Cinemas) has been laid before the association with a request to add these partial reports to the general Austrian report prepared for the Rome conference.

Regarding the outlook of requirements of the films already mentioned, the Association, having accepted the request of its members and the various sections, as well as the attached explanatory notes, considered them both of such importance as to warrant printing. This has been done in the brochure "The Film as Means of Teaching" published by the "Deutscher Verlag für Jugend und Volk". The brochure contained a table of the varieties of the scholastic cinema in Austria, and the author of this report, as a result, added it to the general Austrian report for the Rome Congress.

"The prospectuses of films required" contained a list of advisable pictures presented to the Federal Ministry of Instruction. The result was that the ministry in question created a film bureau which now undertakes to furnish schools with appropriate films along the lines of the reports made. This governmental bureau and the repository of the educational films of the A. A. S. C. (Vienna, 3 Semengasse)

is run in union by the latter body and the Vienna, *Urania*, and provides a practical solution to the elaborate theoretical scheme made by the *Filmbedarfsplan*.

We will summarize here the schemes which list types of films for primary and high schools.

In the case of general educational films the case is different since it would suffice to change the titles (translate) to render many of the films available for other countries. This would prove practical since the same subjects are treated cinematographically in many countries, while, on the other hand, no country possesses even relatively complete repositories of educational pictures. It is of the first importance that such an international operation should prevent the same films from being shown too many times, and should also encourage the production of pictures in a much neglected field.

I. — FILMS FOR THE PRIMARY SCHOOLS.

THE BIG CITY.

Circulation and means of transport : Movement in a big city, traffic dangers ; the central station ; the airport ; development of means of communication, railways, ships, airplanes.

Food : Distributing centre, goods sheds, central meat markets, general markets, bread, sugar, salt.

Heating : Turf, coal mines, gasometers, etc.

Illumination : From the resin torch to the electric lamp. Hydraulic installations. Electric power stations.

Dwellings : Clothes, household utensils, extracting iron, manufacture of pots and pans, etc., glass-making, paper-making, leather, granite, lime, building material, road building, house building and the various trades connected therewith ; a glance at a factory and a commercial store.

Civilization from the point of view of the dwellings of antiquity and those of our own

times : Primitive epochs, palafittes, Germans, Romans, Middle Ages, modern times.

Public Service Installations : Reservoirs of drinking water today and in former times. Firemen and night watchmen.

Hygiene, Physical Culture : Dangers menacing children's health. Care of the teeth. Swimming, Alpine climbing and winter sports.

THE PLAIN.

The Farm : Men and beasts in the farm ; horticulture ; bees ; the village ; the village blacksmith ; village festivals ; (fairs, annual markets, marriage and funeral customs) ; village ponds (geese, ducks, fish) ; windmill, harvest ; fruit gathering.

The Meadow and Field : Cultivation up to harvest time ; Life of the animals ; hares ; porcupines ; moles ; marmots ; crows ; May-bugs.

The Highroad : Vehicles of all kinds ; travel in the old days.

A Hurricane : Cloud formations ; passage of a tempest ; lightning ; floods.

THE MOUNTAIN.

The Farm : Men and animals ; getting in the hay ; economy of pasturage ; life of the beasts : serpents, vipers, frogs ; butterflies.

The Wood : Cutting the trees ; charcoal making ; resin gathering ; life of the beasts : big game ; foxes ; martins ; squirrels ; birds (woodpeckers ; cuckoos).

The High Mountain : Funiculars, Alpine climbing ; winter sports ; avalanches ; storms ; rainfall ; life of the beasts : chamois ; eagles.

WATER.

Hydrology : Cloud formations ; precipitation ; springs ; cascades ; river beds ; rivers ; the sea (illustrated with animated cartoons).

Hydraulic Power : Corrosion ; warping of wood ; water mill ; sawmill ; water power for dynamos, the violence of the storm ;

breaking of a dyke ; flood ; steam engine ; navigation.

Still Water : Ponds, lakes, natural spas ; swimming, rowing, fishing.

Man and Water : Utilization of water and its power ; man in conflict with the power of water ; dykes ; locks ; the Danube (lock building).

LIFE OF THE ANIMALS.

(a) Evolutions, habits, emigrations, flights, food questions, relations with man (examples to make clear).

(b) Scenes from the life of animals tending to the formation of character.

II. — FILMS FOR HIGHER GRADES.

EDUCATION AND THE FORMATION OF CHARACTER.

Our good animals ; protection of animals ; a part of the country, protection of plants ; respect for woods ; mutual assistance.

GENERAL GEOGRAPHY.

Astronomical Geography : Fitting out an observatory, (animated cartoons) ; a ship on the horizon ; cycle of the day and night ; cycle of the seasons ; the planetary system ; Jupiter and Saturn ; orbit and phases of the moon ; eclipse of the Sun (photographs of a real eclipse) ; comets (animated cartoons) ; falling stars.

Volcanoes : Section of a volcano in eruption (cartoons) bending ; breaking, rise and fall of coastlines ; earth movements and displacements of hills ; registration of seismic movements (real life photos).

Water courses : (animated drawings) ; different kinds of springs and their formation ; deep erosions, retrograde erosions formation of epigene valley ; formation of a gorge, gorges, (photos) ; cascades ; rapids, torrents (photos), formation of mazes ; formation of river beds ; moving sandbanks ; formation of deltas.

The Sea : Coast shrinkage ; formation of rugged coastlines and beaches (animated

drawings, tides ; cause of tides (animated drawings) ; formation of lagoons ; bays ; rough seas ; high tides.

Glaciers : (drawings) snow formation ; formation of U-shaped valleys in the "Kare" ; crests of hills ; crevices ; formation of the platform of a glacier.

Extraction of minerals : Coal mines ; constructing a tunnel ; oil wells, turf cutting.

Agriculture : Steam plough ; reaper ; threshing machine ; harvesting tropical products : rice, tea, coffee, cocoa.

Forestry : Felling, sawing, water transport of trees ; charcoal.

Cattle raising : Economy of pasture lands ; prairies ; cattle raising in South America, sheep raising in Australia.

Fishing : Herring fishing, deep sea fishing ; sardine fishing.

River Navigation : Rowing boats ; locks ; river ports.

Sea Navigation : Aboard an ocean liner ; port discipline ; launching a ship.

Railways : Repair works ; turn-tables ; funiculars.

Preparation of a geographical map : from geometrical triangulation to the printing of the map : frontiers (passports, contraband, customs officers).

THE ANIMAL KINGDOM.

(A) *Primitive types of life* (animated drawings). Synthetic picture of the simplest phenomena of life (movement, nutrition, growth). Themes : cell division, possibility of movement, assimilation of nutriment, place in nature's economy, pathogenous microbes, microbes in a drop of water.

(B) *Celenterates and Echinoderms* : the film can show the form and direction of movement of animal bodies with a centralized structure. Theme : animal or plant. Movement of beings and centralized structure of free beings : fishing for sponges ; coral formations (animated drawings).

(C) *Worms* : Symmetrical lateral movement of animals without members. The intestinal worm.

(D) *Anthropoids* : The subjects so far indicated require, nearly all of them, a short film to illustrate them. The following themes, on the other hand, require a more extensive illustration : Spiders at work ; life and activity in the animal world (mice, ants, wasps, termites). Examples of destroying eggs and larvae of insects ; metamorphosis (complete and incomplete) ; harmful insects (Maybugs, locusts, etc.) ; productive insects (silk, wax, etc.).

(E) *Molluscs* : different forms of movement. Themes : cockles ; snails ; cephalopods.

(F) *Vertebrates* : Fish ; swimming movement, diving ; swimming ; life-buoys. Themes : coast and deep sea fishing.

Batrachians : Themes : metamorphosis of frogs, movements. War on flies.

Reptiles : Locomotion in the water and on land. Themes : Crocodiles, serpents, turtles. The films help to overcome the fear inspired by these animals.

Birds : Themes : Migratory birds (partial scenes). Nest-building ; method of flying and walking on the ground in the courtyard. Birds of prey at work : how far they travel. Birds in the egg (animated drawings) ; Protection of birds. Elements in which they move (earth, water, air).

Mammals : Curiosities : Ornithoryncus ; Scaly anteater. Marsupials, whales, dolphins ; seals in water and on land.

Animals that serve Man : Ruminants : cattle, camels, the giraffe. Carnivorods : good and bad climbers, good and bad runners. Bats, tropical and European.

Films of a general character : Polar film. Domestic animals with us and other nations ; desert film, mountain animals ; animals that help man ; movements of the different parts of the skeleton (animated drawings). Illustration of the metamorphosis of an animal (example : the flying fish).

MAN

Hygiene Film : looking after the body ; care of the teeth ; baths ; gymnastics, children's ailments ; vaccination.

Sport Film : Power and selection. Dangers that menace children (according to their age). First Aid ; relations between men ; beasts and plants. In cinema pictures of the animal kingdom showing the fight for existence, account will be taken of the fact that their natural value is superior to their ethical and aesthetic value.

THE VEGETABLE KINGDOM.

If it is not easy to convince all our pupils that a real life exists in the plant world in all its functions, the film (enlarged pictures) provides us with a magnificent means of rendering visible the movements of plants, which would otherwise be almost imperceptible.

Themes : the wonders of flowers, germination and growth (animated drawings) ; (potatoes, beans). Fecundation by means of the wind or insects (as first step towards explanation of sexual functions) ; morphological adaptations and conformation of organs containing the pollen. Fecundation of wheat ; useful plants and their use (linen, cotton), mushrooms, preservation of plants ; utilization of fruits. Agricultural film on the cultivation of vegetables, work in the fields, pasture land, forestry ; virgin forests.

The greater part of the films we have listed should be entered in the category of pictures of a general or particular character.

MINERALOGY AND GEOLOGY.

The greater number of the following pictures are included in the "Project of the Requirements of Technical Films" (films of a general and to some extent of a special character).

Themes : Extraction and utilization of salt, coal, turf, oil, iron, limestone, granite. Also : volcanoes ; water as a destructive and creative force ; modifications of the crust of the earth ; formation of crystals.

PHYSICS.

I. *Building houses, roads, bridges.*

- (1) House building ;
- (2) Road building ;

(3) *Extraction of building materials ;*

- (a) wood,
- (b) sand and gravel,
- (c) lime, marble, cement,
- (d) tiles and manufacture of bricks,
- (e) extraction of granite, syenite, gneiss,

slate, clay.

(4) *Bridge-building ;*

(5) *Iron and its treatment :*

- (a) extraction of the ore,
- (b) blast furnaces,
- (c) from iron ore to the worked metal,
- (d) foundries and rolling mills.

II. *Heating, Lighting, Cleanliness.*

- (1) Coal mines ;
- (2) Illuminating gas ;
- (3) Manufacture of matches ;
- (4) From the resin torch to the electric lamp ;
- (5) Oil industry ;
- (6) Soap-making and candle-making.

III. *Food Products, etc.*

- (1) Water supply, hydrology ;
- (2) From wheat to bread ;
- (3) Manufacture of sugar ;
- (4) Milk supply ;
- (5) Food supply for a great city ;
- (6) Alcohol and its dangers ;
- (7) Extraction of salt.

IV. *Clothing ;*

- (1) From the cotton fibre to the finished suit ;
- (2) Tanning.

V. *Manufacture of Paper.*

VI. *Means of Communication :*

- (1) The steam engine for commerce and economy ;
- (2) History of railways ;
- (3) The automobile ;
- (4) River and sea navigation. From the hollowed tree trunk to travel on modern liners ;
- (5) The airplane ;
- (6) The electric tram ;

- (7) Hydraulic installations ;
- (8) Dangers of the electric current.

The "Filmsbedanplan" was not compiled in the beginning to suit the different ages of pupils, which made the drawing up of a proper programme very difficult. From the film production point of view, this

distinction is very necessary. The films must be complete and coherent as far as they go ; whence it is obvious that although they have to serve more particularly for the teaching of physics, analysis, that is to say, the geographical, geological ethnical, economic, historical and biological content, must not be sacrificed to synthesis.

USE OF FILMS IN THE AUSTRIAN INSTITUTES OF MIDDLE EDUCATION SCHOOLS

BY

Doctor Johann Haustein,

AUSTRIAN PHOTOGRAPHIC AND CINEMATOGRAPHIC SERVICE OF THE FEDERAL MINISTRY OF EDUCATION.

THE Austrian institutes of middle education, above all those properly called middle schools (1), comprise : lyceums, scientific lyceums, technical schools, female high schools, besides teachers' training colleges, technical institutes and those for the commercial and agricultural professions.

At first, most of these institutes hesitated regarding the use of the film in education. Nevertheless, a certain number of them, particularly some national institutes (boarding schools) and various technical and trade schools together with schools of other kinds, did provide themselves with a scholastic cinema. However, save for a few exceptions, this installation did not take the form of a cinema destined for projections in the class-rooms, but of a scholastic cinema at the spectacles in which the whole school or at least several classes together assisted.

(1) Middle school = school between the elementary school and the high school : pupils leaving the middle school have the right, after passing their examinations to frequent high school (university, technical school, agricultural veterinary high school, commercial school, etc.).

In the majority of cases, the projection took place in the afternoon and consisted of educational or instructive-divertive films shown to all the pupils of the institute, instead of educational films shown only to certain classes and during school hours.

This reluctance of the middle schools with regard to films was not without reason, not so much because of the uncertainty of results and the importance of this new means of education, as on account of the technical and financial difficulties arising from the use of the didactic film.

A cinema intended for the showing of educational films should not be installed in the hall used for instruction, but in smaller contiguous rooms provided for the purpose.

The management of the apparatus should be entrusted to an expert operator who could, however, be one of the masters.

The material of which the more or less non-inflammable films are made and which those authorities most desirous of a safety guarantee would certainly adopt, was and is not only expensive but is far from being durable.

The middle schools solved this problem by concentrating their pupils' attention upon instructive or cultural films when such were shown in neighbouring cinemas, arranging when possible for performances to be given exclusively for certain classes of the schools, the children being admitted at reduced prices.

In Vienna, the 'Urania' and the 'House of Popular Education' have, by means of the organization of the frequent projection of films for the pupils of the middle schools, given to young people the benefit of some most useful films, so that the middle school masters, after studying the criticisms and observations made at these performances, have found them useful for the continuation of the work. Similar attempts have also been made in other cities.

The Middle School Masters' Union for the production of films and photographs has for some time interested itself in the question of scholastic films. In a fitting moment the Union, through Prof. H. Fuchsig, collaborated in the elaboration of programmes concerning the necessity of films, established by the National Ministry of Education and made by the Cinematographic Scholastic Union for the elementary and high schools.

It must be remembered that the above-named organization has taken active part, under the direction of its President, Court Councillor, Doctor K. Czerwenka, in the preparation of the third International Conference of the Educational films which took place at Vienna in 1931.

The Austrian Photographic and Cinematographic Service which is subordinate to the National Ministry of Education, with which the above-named Union has a continuous relationship, has particularly interested itself for several years now, in all problems of pedagogic and technical character relating to the educational film and its use as a means of instruction (especially in the middle schools) and has sought, as far as possible, to solve them.

The Austrian Photographic and Cinema-

tographic Service was the first organization in Austria to realize the great importance, for educational purposes, of the reduced size film, and has for some time been doing everything in its power to bring about an improvement in projectors for reduced size films and a reduction in their price. The Union has also striven for the production of such films for educational purposes.

It is only the sub-standard film (the 16 mm film has been chosen because from the technical point of view it is the one most conducive to the ends desired) which permits of an elimination of the already mentioned difficulties which represent an impediment to the direct projection of films in the classes, and the various types of projecting apparatus are to-day so perfected and well-constructed as to give pictures sufficiently luminous for teaching which may be used by the master with the greatest facility. In addition, they can be screened in the class-room without any danger to the pupils, since the reduced size films are made of a practically non-inflammable slow combustion material.

In this manner only will it be possible to realize the wish of all teachers and all friends and supporters of the educational film, i. e., the possibility of using the films in the moment desired, so necessary and advantageous in the field of education, especially in the middle schools.

Since it is difficult and often impossible to alter the prospective programmes of a collective projection of films during school hours, one should be able to effect the projection outside the school hours of instruction: this is, indeed, one of the conditions — *sine qua non* — for the regular use of the cinema.

Since the apparatus for the reduced size films attained the desired qualities, the Austrian middle schools have made ever increasing use of this means of instruction.

The acquisition, for each individual school, of small apparatus for reduced size films has unfortunately been rendered difficult owing to the economic conditions

and the great saving system which has been introduced into the middle schools: nevertheless, numerous schools have acquired these apparatus and many others wish to do so.

The Austrian Photo-Cinematographic service, in view of the needs of the middle schools, does everything in its power to complete and increase as far as is possible and with a precise programme as basis, the collection of reduced size films for teaching purposes which it already possesses.

For the present, the schools cannot obtain reduced size films save from renting houses (apart from the photo-cinematographic service mentioned, there are the houses Agfa and Kodak). For the future it will certainly be advisable to acquire such films as can be regularly and frequently employed in teaching. (The new Ozaphan system of the Agfa will certainly be suitable for this purpose by reason of its economic convenience).

In the meantime, the Austrian Photo-Cinematographic service contributes to the work by lending projection apparatus for reduced size films, for set periods of time, first to one and then to another of the middle schools. In this way the schools can experiment with this modern means of instruction and be persuaded (by reason of the favourable results obtained by this trial) to buy their own apparatus.

Finally, it is necessary to remark that in Austria, several middle school teachers are themselves producing films with the object of obtaining films especially suited to their instruction. The great value of such work is evident, but on account of the expenses incurred, help is needed which might be given by the public funds or by

those organizations interested in the work, though, at the present moment, such help is only possible in a very limited degree. Ever increasing numbers of middle school teachers are engaged in modifying the already existing films of diverse kinds and origin, so as to render them suitable for middle school teaching.

One must also note that the National Ministry of Education, the highest scholastic authority in Austria, already several years ago decreed that all educational films, also those destined for the middle schools, be submitted to its judgement and only after approbation be used in teaching. This was decided on in the interest of the quality of the films, in order to avoid both that the cinema, after being recognized as a splendid means of teaching, be discredited, in consequence of the projection of defective or unsuitable films or of wrong use, and that precious time be lost.

Subjects, the teaching of which may be completed by the cinema:

Natural History (zoology, botany, hygiene).

Geography (general outline, sea, ice, volcanoes, etc. story of countries, economy, peoples).

Physics and Chemistry (technical side).

Among other subjects:

Foreign Languages (foreign culture, customs and life of the peoples).

Mathematics and gymnastics.

This list of subjects refers principally to the middle schools. For the use of the cinema in the other educational institutes, apart from the subjects themselves there are also the questions of technical order to be considered.

THE REDUCED SIZE SOUND FILM

BY

Dr. E. von Lölhöff.

THE reduced size film has conquered a predominant position in the field of educational and instructional cinematography during the last few years. This is due to the easy handling and maintenance of the apparatus, the safety it enjoys against the danger of fire the reasonable price asked for machines and the numerous uses that can be made of them. All this has favoured the introduction of the sub-standard picture in teaching. The numerous reduced size silent films existing have given teachers a possibility of adapting the motion picture to all requirements and of including it in their didactic programmes.

The coming of the sound film makes plain even in the domain of the reduced size picture, the disadvantages of the silent film as compared with the sound film. The supply of new silent films has necessarily run short since the production of documentary and instructive films has all been in sound films. After more than 80 per cent of the cinemas of Europe have wired their halls for sound, silent films no longer prove remunerative for the big motion picture producing houses.

Consequently, the sub-standard silent picture was forced to turn into a sound film to keep up to date.

The early attempts to combine silent films with gramophone discs could not give satisfactory results since the reason of the existence of the sound film does not lie in the possibility of accompanying pictures with music or more or less artificial sounds, but rather in giving sound and image a true and natural unity capable of effectively increasing the suggestive quality of the film.

The first step to be taken for the develop-

ment of the reduced size sound films would naturally consist in the production of apparatus for registering and projecting sub-standard sound films.

It will be remembered that last year, at the last Teaching Cinema Congress, the first models of sub-standard sound film machines were presented, or at any rate announced. Since then, technical progress has reached such perfection that it has become possible to solve the problem of reducing normal size sound films into sub-standard sound films in the most satisfactory manner. Apparata for projecting sound films has been put on the market and these machines are very perfect from both optical and acoustic points of view.

The most important question, that of format, has been settled by means of an agreement between the German and American producers who have adopted the format in commonest use in the world market.

The 17.5 mm. size, proposed by France, is not utilizable in these machines, and does not interest the world market.

In order to preserve for the picture its natural size and to allow the sound track to have a width of 16.5 mm (a sufficient width to obtain a good and fairly powerful reproduction) the 16 mm film is only perforated on one side, which does not in any way impede the running of the reel. Lengthy experiments, made without any special precautions, have demonstrated that the running and evenness of running of the film are perfectly assured, and that the perforations are not subjected to any excessive wear.

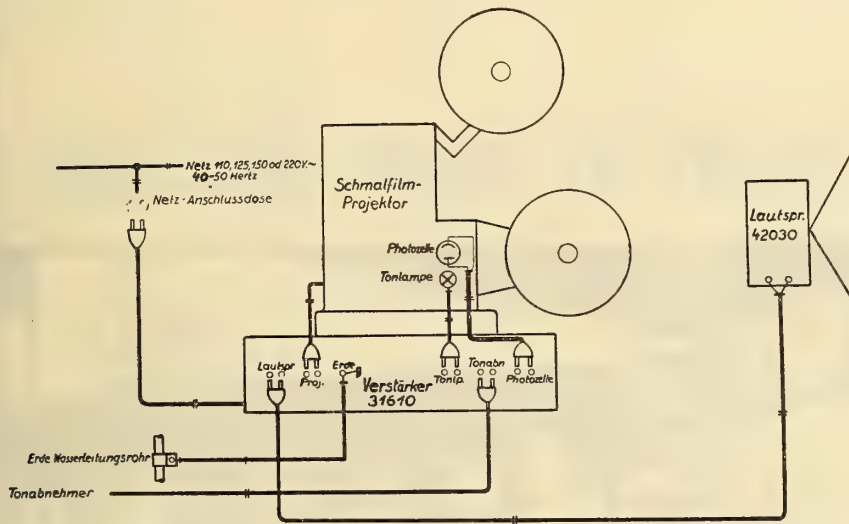
A new projector for 16 m film has been manufactured by the *Klangfilm* G. m. b.

which has had a prominent place in the field of technical development and has installed the largest number of halls in Europe.

All the experience and research of a number of years were placed at the disposal of the designers of the new apparatus.

For sound reproduction, the ordinary projector as commonly used is adopted. To this is applied the sound track reader under

the same time as a socket for the projector and be furnished with current from the alternating lines for all the voltages existing in Italy and for frequencies from 40 to 50 periods. All the attachments are made with special connecting wires which cannot be interchanged, so that the wiring up can be done by persons who are not experts. The loud-speaker, connected with a length of wire, can be placed at the side of or behind the



Maßstab:	Datum	Name	Die Zeichnung ist unser Eigentum. Jede Vervielfältigung, Verbreitung oder Abänderung ohne unsere Genehmigung ist strafbar und wird gerichtlich verfolgt. (Schreibweise: gesetzl. Schutz gegen unbefugte Vervielfältigung, N. 6. 9.) Klangfilm Gesellschaft mit beschränkter Haftung	Klangfilm G. m. b. H.	11301 mo Erteilt für: Erteilt durch:
Gezeichnet	14. 11. 33	G. H.			
Geprüft					
Normgepr.					

which the film passes on its run from the projection opening to the winding-off bobbin.

The earliest machines for projecting sound films on the market used Siemens 16 mm projectors, but projectors of other makes can now also be arranged by the *Klangfilm* for the reproduction of sound.

The part for reading the sound track contains a special guide for the film, several devices for regulating the volume and uniformity of the sound, a stimulator lamp for the optical system and a photo-electric cell. The amplifier, which weighs but little, and is of modest dimensions, is constructed in such a fashion as to be able to be used at one and

screen. It is advisable to place the loud-speaker behind the screen, or at any rate in some position where it is not visible, so as to give the impression of a perfect accord in time and space between image and sound. According to the dimensions of the hall or room where the projector is used, two types of loud-speaker can be used. In this way, it is possible to choose the kind of loud-speaker best adapted to the acoustics of the hall. The practical use of the reduced size sound film projector in schools has demonstrated its great possibilities for scholastic purposes.

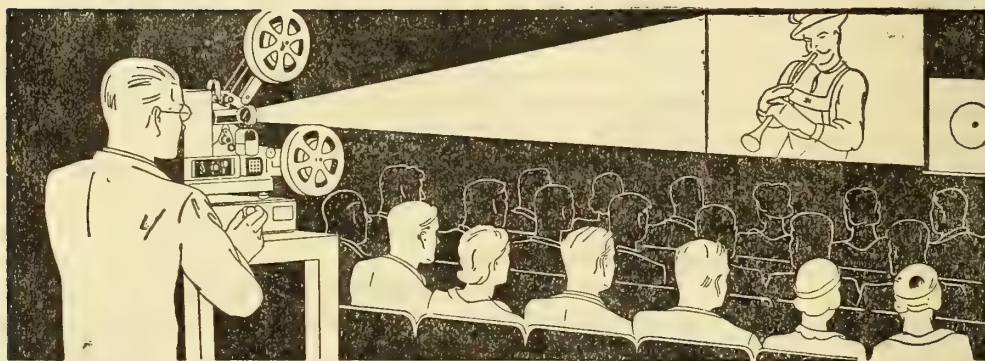
The projection of documentary and in-

structional films, or weekly reviews with direct sound effects from nature and life, is one of the chief objects of the apparatus.

It is superfluous to hint at the utility of this means for the education and general instruction of the public.

The simplicity of maintenance, the great security against fire, open all the possible applications of the sound film to the reduced size type.

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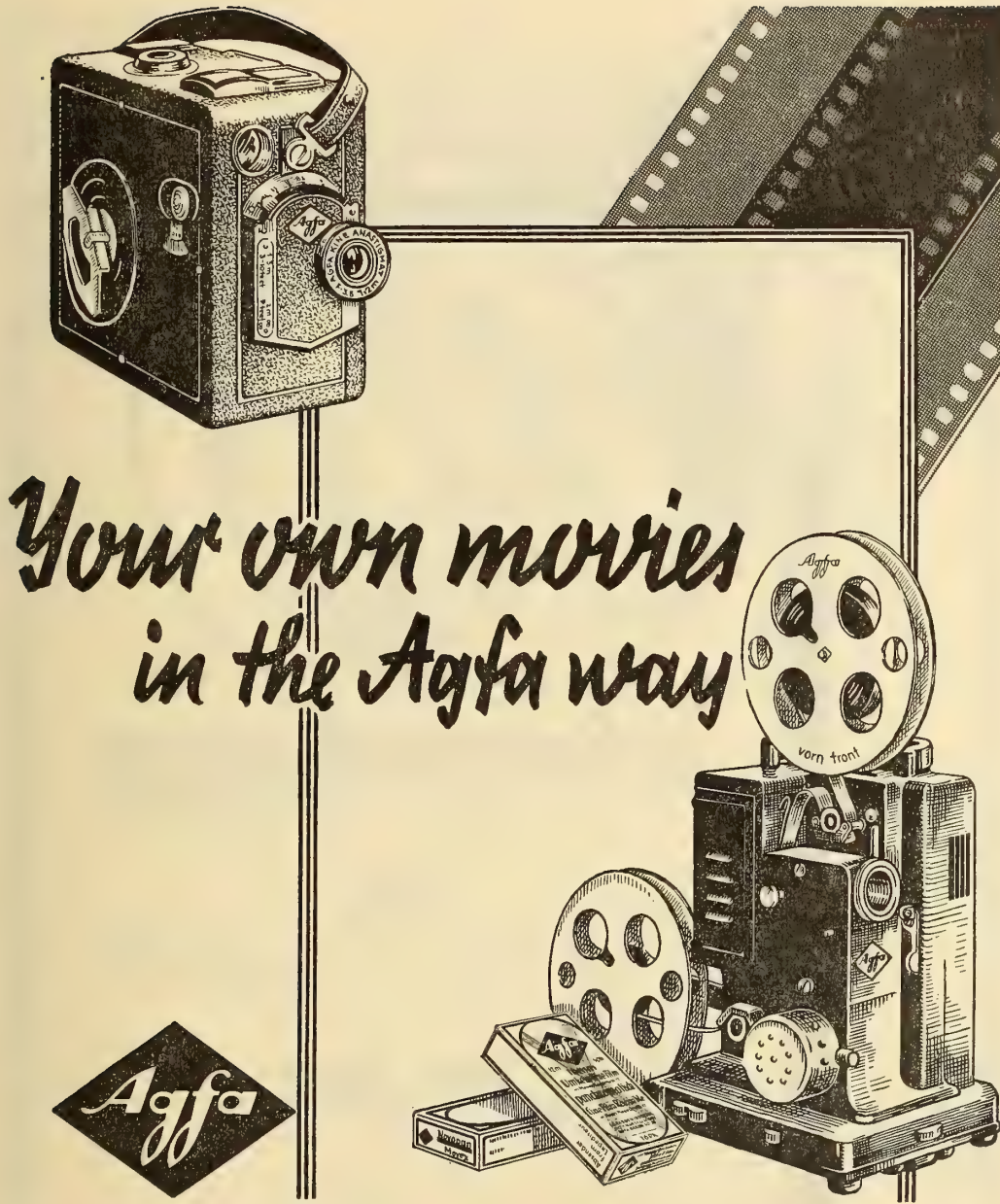
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THE CINEMA IN INTERNATIONAL LIFE

REPORT OF THE INTERNATIONAL INSTITUTE OF INTELLECTUAL COOPERATION

The Cinema in Intellectual Co-operation.

IT was the duty of the Institute of Intellectual Co-operation to endeavour to make use of the new modern means of spreading ideas : the press, the wireless and the cinema. These three means constitute so many aids of unbounded efficacy for facilitating the drawing together of humanity, ensuring a better reciprocal understanding between nations and spreading that wider knowledge of the world that must serve as the foundation of every international accord.

The first step was obviously that of teaching. The peace problem is so intimately connected with the necessity of forming a new mind that that question was bound to predominate, and it was logical to decide to reach the goal by a better preparation of youth for its national and international duties, by conducting the instruction of adults on more modern lines and by a characteristically popular teaching and proper utilization of the free time of the working class.

As regards the cinema, its widespread activities were the subject of important discussions in two sections of the Congress of Rome, and are a continual subject of study by the International Institute of the Educational Cinema.

But the Institute of Intellectual Co-operation offers other possibilities of utilization in a general way, of the existing means for spreading thought and, more particularly, the cinema. They are possibilities which give rise to other problems, rich in promise, which must be solved if we are to form an authentic international collaboration and if the essential principles of organization, methods of exchange and

division of labour are to be recognized and brought into being. All this presupposes the study of a certain number of difficulties of a juridical, administrative and even economic order; it is a study that is imperative and will be logically and gradually accomplished by the systematic actuation of a plan or programme of co-operation.

If in fact it is natural first of all to think of the various means which the progress of science has placed at the disposal of man, and equally of the many new possibilities of drawing mankind together that are opened to us, it must not be forgotten that the facility of more rapid contact provokes defence reactions and stirs up other problems, which can be solved only by a policy of fusion resulting from a series of resolutions studied and discussed from every point of view by all those concerned. It must not be forgotten that the continual interdependence of peoples, the possibilities they have of exchanging the most diverse products, not only between country and country but between continent and continent, has made the system of economic relations infinitely more complex. If the nations feel with increasing force and understanding that their reciprocal life interests are growing ever more closely connected, they have been led, on the other hand, rightly or wrongly, to endeavour to defend themselves from the consequences that might result from this new world situation.

It would certainly be a paradox if these automatic relations were to be produced in the field of human thought also, and if, for material interests or political motives, or more simply still for lack of organization, forms of isolation should become defined in the spiritual sector. The work of intellect-

ual co-operation tends in fact to make all the nations benefit by the magnificent effort of creation, discovery and progress that is being accomplished today all over the world; it seeks to generalize the rules of reciprocal aid that have always been the basic rules of science and research, dominated at all times by the broad spirit of co-operation. Its object is to arouse, in all the sectors that interest it, those exchanges and comparisons which constitute a continual and inexhaustible source of wealth by the reciprocal knowledge they confer.

These leading ideas apply to the cinema as to all other intellectual activities and there is no doubt that the League of Nations must propose, in its programme to solve all those problems which may be defined as the *international problems connected with the use of the cinema*.

If we endeavour to define them we see at once that they come within the three principal categories of the subjects which concern all those who in other fields of action have dedicated their efforts to the task of bringing the different nations together:

a) how shall we by means of the cinema facilitate the bringing together and mental comprehension of people with people? How shall we utilize to the utmost this instrument of reproduction and diffusion and the infinite resources it offers to spread useful knowledge, to broaden the crowd's field of intuition, to supply new grounds of opinion and give scope for the formation of a general concept of the world's life and its necessities?

b) how shall we prevent this means of drawing nations together from being employed for the opposite purpose, not merely deliberately as a dangerous propaganda but also through ignorance or disregard of certain foreign civilizations and mentalities?

c) how shall we prevent those isolation reactions which are so frequent today and which might lead to the closing of frontiers to films of real interest? How, we might add, shall we bring about an intellectual

protection which will assure the free circulation of those works of the mind which should be known all over the world?

d) how lastly shall we make the best use of the cinema to raise the intellectual level of the public, to develop its sense of beauty, to accustom it to appreciate the masterpieces of thought? How shall we increase the intellectual functions of the cinema and its task of forming the mind?

Problems of the International Cinema.

The above problems arise in connection with all the means for spreading thought, and have been studied by the League of Nations and its organization of Intellectual Co-operation: those connected with the use of the wireless for peace propaganda, of the press as aid to a work of international organization, as the intellectual function of broadcasting and of the press itself. In the project for a Moral Disarmament Convention which was formed last year these difficulties were mentioned. If this act should be signed and ratified and put into force, it will be the duty of each government to see that the microphone and the screen are not used for purposes contrary to the superior aims of peace, but on the contrary to use them and impose their use in the interests of international relations.

In addition to this action, which may be considered official, there are numerous private undertakings which cannot of necessity be included in the work of each government and its administrations. One or two countries are so constitutionally organized that certain enterprises do not fit in readily with the State attributes, while in the more centralized States there are numerous enterprises which are connected with private bodies that are either directly interested in wireless transmission and the cinema or, by their statutory aims, are formed for the cause of educating the young and drawing the nations together. Not only national but also great international organizations have undertaken this task. It is obvious,

therefore, that in preparing each programme of activities in the sector that interests us, account should be taken of the function that may be exercised by the above mentioned Associations, by groups of educators, by artists, writers and producers.

While these are the features common to this group of problems resulting from the use of means of spreading thought, it is obvious that the cinema has its own special and characteristic problems. It must first of all be recognised that the international problems resulting from the use of the cinema have not so far been studied as they deserve, while other neighbouring fields have been more amply examined. As far as the press is concerned, the League of Nations has for years been carrying on an unceasing labour. It has collaborated in the great technical newspaper conferences; it has formulated proposals, studies and resolutions likely to lead to concrete conclusions in regard to everything connected with the publication of false news, the duties of newspapermen and the facilities to which they have a right. The educational function of the press, from the point of view of the public, has been the subject of inquiry by the International Institute of Intellectual Co-operation and has given birth to a volume which was submitted to the examination of the Press Conference at Madrid, the inquiry meanwhile being continued in journalistic circles.

With regard to broadcasting, which also has aroused similar concern of late, the International Institute of Intellectual Co-operation has prepared the project for a Convention, which has been submitted to the examination of all governments, the result of which, as soon as it passes into force, will be to cause a series of juridical measures and provisions to be passed, putting broadcasting, as far as possible, at the service of international understanding. An inquiry is still proceeding into the intellectual function of the wireless, and a number of experts are collaborating together in search of the means necessary to ensure that wireless

transmissions contribute to the greatest extent possible to the education of listeners. The International Broadcasting Union has the same aims. It may be said, therefore that in these cases there is a programme of international work and that all are concerned to find a definite solution.

The next problem is to prepare a similar programme of cinematograph material, keeping in mind the conditions special to this artistic form and also its infinite possibilities. The cinema could bring every form of contribution to the principle of collaboration, and it would undoubtedly be advisable for the Congress of Rome to examine each form, especially in regard to the following points:

- a) cinematograph news-reels;
- b) films and animated cartoons intended to show the value of international relations;
- c) films and animated cartoons suitable for arousing and developing the conception of mutual knowledge between nations, making the people of one country appreciate the creations of other countries, the part other countries have in the general work of civilization and their function in the life of the world;
- d) films of general culture or of exceptional literary, artistic and intellectual value.

Conditions of International Cinema-tograph Action. The conditions of international action in the cinematograph field appear, on general lines, to be more favourable and at the same time more complex than for other means of diffusion. Wireless transmission, for instance, is coming increasingly under the direction of organizations which are rigidly state controlled. There are still some exceptions and different types of national organization, but, generally speaking, it is quite possible to conceive of government intervention, when necessary, for the formation of wireless transmission programmes, and therefore of the possibility of laying the foundations of an international understanding under gov-

ernment guarantee. There are delicate points that will have to be considered, doubtless, but they do not, juridically speaking, present difficulties which might lead to complicated negotiations. These negotiations would not differ much from similar forms of international discussions and understandings. Such solutions do not exist for the cinema.

There are, on the other hand, elements in favour of concerted action. For some time past, all those who consider an objective knowledge and intelligent understanding of the various national points of view as one of the foundations of international organization, recognize the importance of spectacles in which the visual element has a preponderating part; and the formation of an international programme of action by means of the theatre has therefore been studied. Many of the difficulties that cropped up in this case automatically disappeared, as a consequence of the very character of cinematograph production. We may cite, as a typical example of this simplification of the problem in connection with the cinema, that of travelling companies, which question is now settled. The other problem of the international collection of theatrical works also becomes very simple, as likewise the problem of translations. Undoubtedly, since the talking film has come into general use, the cinema is no longer, as it used to be, a universal language; but a number of technical processes, written sub-titles and oral comments, afford a fairly satisfactory solution of this problem.

The cinema, on the other hand, like the newspaper and wireless, enables us to keep the crowd well informed in regard to the chief living realities and concerns of the moment. Like all other means of diffusion, its action can be joined to that of music, and it has a much greater force of visual impression than the theatre; it has at disposal the greatest variety of technical means for enabling spectators to understand all sorts of problems, thanks to animated cartoons and the infinite resources of photography.

There are doubtless typical difficulties connected with the film, especially those of an economic order; but that does not detract from the fact that there are numerous possibilities of an understanding, and it ought to be easy to overcome these difficulties, considering the numerous measures that may legitimately be taken. It is a field that is still to some extent unknown. A number of national and international organizations have had these problems under consideration, and innumerable efforts have been made to encourage the production of films likely to help in bringing the nations together.

In fact, the results so far obtained are excellent.

International Solutions considered by the League of Nations.

Various international meetings convoked by the organs of the Institute of Intellectual Co-operation have discussed the international function of the cinema. Meanwhile, there is no need for us to speak in this Report of the film on the League of Nations which is under consideration and for which several solutions have already been suggested.

The problem, however, was considered as a whole by the Committee of Arts and Letters in 1931. This meeting of writers, philosophers and artists had already been convoked by the League of Nations to give the latter its opinion on the fundamental problems which are agitating the universal consciousness, and on the means of dealing with everything that is of direct interest to the future of human culture. It was natural that, among other things, the protection and diffusion of the greatest works of contemporary art and thought should be discussed. A number of plans of action had already been considered when one of those present, Thomas Mann, supported by Miss Vacaresco, who had previously made similar proposals, asked that this project of rating, selecting and protecting works of art should be extended to the cinema. While taking into full account the political difficulties that might result, he suggested that an In-

stitute should be formed to use its influence for obtaining a prohibition to project films which might have a dangerous effect on the masses, and to see that no veto should be placed on films which the Institute considered suitable for projection. "It might be objected", said Mann, "that an intervention of this sort would constitute a kind of offence to national sovereignty; but it is impossible to arrive at an understanding between the various countries without renouncing something. On the other hand, several nations have already shown themselves ready to give up some of their privileges in homage to the principles of humanity. If this project seems rather Utopian today there is no doubt that it will be found necessary before long".

This problem was presented to the Assembly the same year, through the French Delegation.

Thus the problem of an international understanding for the circulation of better films was faced.

Some time later, on April 28, 1932, a Committee of film producers and schoolmasters met at the Paris Institute and examined, among other questions, the possibility of a collaboration of the cinematograph industry in the work of the League of Nations in regard to :

a) the preparation of scenarios with the participation of the most authoritative representatives of literary and artistic circles;

b) the possibility of producing news-reels dealing especially with the League of Nations and its organizations.

This meeting voted for the nomination of a Committee of Experts formed of producers, to collaborate systematically with the International Institute of Intellectual Co-operation.

Various Possibilities of International Collaboration. Methods.

The resolutions quoted above indicate the line that might be followed for the formation of a constructive programme. But it must not be forgotten that we are

facing here a very complex situation, and that, if we were to consider it as one that could be easily remedied, we should run the risk of recommending solutions that might prove inadequate.

In this sector, as in all those connected with the various forms of intellectual activity, we must keep in mind the features proper to each branch of culture. We must also be sure of support from national organizations and know how to found international work on the basis of the principles of division of effort and co-ordination of the results obtained nationally. *A preliminary inquiry will perhaps be necessary for certain points.

In fact, when examining the different aspects of the problem, the Congress will be able to give valuable suggestions for the use of the most suitable methods : formation of an International Committee ; National Organization to act as basis for the work of the International Institute of Intellectual Co-operation :

a) *News-Reels*. — The news-reel problem appears under two different aspects. First of all, the one examined by the Committee of producers and schoolmasters in April, 1932 : collaboration with the League of Nations, the International Labour Bureau and the International Institute of Intellectual Co-operation for the purpose of making official international activities known by means of news-reels. There is a much greater wealth of material in this field than may be thought at first sight ; the photographic possibilities go beyond meetings of assemblies, conferences and committees ; international action concerns the whole world and deals with the latest problems which at moments are in the minds of all.

From this point of view the only possible solution appears to be an understanding with producers, by means of a regular contact with the International Institute of Intellectual Co-operation, which contact might be formed of a mixed Council of those interested.

The other aspect of the problem is that

of the so-called news-reel. There is certainly no other means which is so live, so direct and so suggestive for giving the public the greatest possible knowledge of the events occurring all over the world. The choice of subjects constitutes one of the most important points in this field, and it is just this point which gives rise to the necessity of an international co-operation by means of an understanding between the various countries. It is undoubtedly advisable to form committees which could prepare a programme likely to interest the subjects of all nations, by means of a selection from each national production. An organization of this kind would be more easily formed in the broadcasting field, where National Councils for the preparation of programmes are becoming general. But surely it would be possible to form an organization of the same kind for the cinema, and so make exchanges more frequent and useful, eventually collaborating with an International Committee of the cinema?

b) Films of Interest to International Relations. — In addition to educational films properly so-called, and news-reels making known the work of the League of Nations, this body ought undoubtedly to take the greatest interest in making the cinema serve for a more wide-spread knowledge of great international problems. It has frequently been said that peace depends on education, and especially on the education of the masses. But that is a commonplace; and if we really seriously wish to arrive at some form of realizing this end, we must discover means for spreading the ideas most suited for arousing interest and facilitating understanding of the most complex problems.

Excellent results have already been obtained in this sector by the use of animated cartoons. It remains for technicians to say whether these forms can be still further developed, and whether they are suitable for insertion in the programmes of spectacles intended for the general public. The problem of the properly so-called "films to

aid the understanding of various international problems", could and should also be examined, including their evolution and the way in which they are presented today. The field of international, political, economic, financial and cultural relations is sufficiently vast to entitle those who are competent to decide the utility of an organization for encouraging productions of this kind.

c) Reciprocal Knowledge among the Nations. — The technical notes annexed to the present Report deal with the problem of the cinema in connection with art in all its forms. This is not a new inquiry; studies and numerous practical experiments have already been carried out for the purpose of making known, by the aid of the cinema, the greatest achievements of human genius and the artistic manifestations of popular art and tradition.

But there are still other possibilities. The cinema is an incomparable method for making different peoples, and still more different civilizations known and understood. The production of films for this purpose should be encouraged. But in this case also there ought to be an organization for the exchange and selection of films, of the type indicated above.

* * *

Perhaps the same organizations and personages who might be called upon, internationally, to collaborate with the League of Nations on the question of the cinema, could interest themselves in the work of selection, co-ordination and production, both for news-reels and for those films dealing with international relations and intended to facilitate the reciprocal knowledge of nations.

* * *

d) There remains the more general problem of the intellectual function of the cinema, of everything connected with the quality and artistic, intellectual and moral value of the films offered to the public. It certainly is not the case to dwell on the criticisms that have been only too widely spread. It

is better to note the continual progress made, which we can easily observe in a large number of cinematograph productions. But this problem involves a whole series of problems interesting the highest forms of intellectual activity: collaboration with composers, creators, dramatic authors. The problem of theatrical works that are suitable for the screen must be studied, as well as that of original works for the screen.

In addition to these strictly intellectual problems, there are others of a political, financial and economic order that cannot be ignored; nor can we ignore the question of the film intended for a civilization different from that of the country of origin. Although the film may be, theoretically, a powerful means of mutual understanding and appreciation, it can also be the cause of misunderstanding and discord. This happens in the case of historical and other types of film made in one country but dealing with another.

Special consideration should be given to films likely to give an understanding of the solidarity that should unite all peoples and their mutual interest in peace and reciprocal collaboration.

After this comes the question of the facilities to be granted for the circulation of films, and especially for the circulation of the best productions, those, that is to say, of the greatest moral and intellectual value.

A preliminary inquiry could be made on all these points by the International Institute of Intellectual Co-operation. There should be no attempt to collect a complete documentation by extending the inquiry over the widest possible field, because in this case the system of widely distributed questionnaires could not be adopted, the aim being quality rather than quantity in the answers. The best way, therefore, would be to appeal first to those in each country who are most qualified to give an opinion: to scene directors, authors, composers, writers. When thus definitely consulted

on the various aspects of the problem, they would be in a position to offer a series of suggestions on which the efforts of the international organization for this sector could be based, thus eliminating all fruitless and useless experiments.

Conclusion.

This note does not claim to pass in review all the studies, researches and projects connected with the *cinema in international life*, nor to deal with all the services which the film can render to the documentary knowledge of peoples and civilizations. It is concerned mainly with the aid which the cinema may give to the spiritual drawing together of the nations, and with demonstrating the fact that the International Institute of Intellectual Co-operation is ready, by means of its organization systems, to make of the cinema an efficacious auxiliary of peace through the greater mutual knowledge of nations.

The International Institute of Intellectual Co-operation proposes to put its labours at the service of thought, and to make thought co-operate with the reconstructive work which the League of Nations has undertaken in connection with international relations. There are doubtless other fields in which this construction of relations and formation of international bonds is more manageable, especially if we wish to limit ourselves to existing institutions. But, with the cinema we can face the artistic creation of the international film in the hope that it may become universal.

It is therefore logical to ask ourselves how, by this marvellous means which has already an important educational and informative function, we can deal with the living forces of comprehension and understanding. The problem is, first of all, to come to an agreement as to the rules of action, which should be as simple and adaptable as possible, and as to the best way of applying them.

THE EDUCATIONAL CINEMA

BY

Emile Roux Parassac.

THE first thing to do is to define and fix terms. We speak of the *educator cinema* and not of the *educational cinema*, considering the cinema in the whole of its functions and, therefore, as a living being. We speak of the *educational cinema* when comparing the film with the book, which is a means and not an action.

It would be a mistake, in fact, to limit the educator cinema to a determinate moral formation and thus diminish its general educational possibilities. The picture is the only universal language, which there is no need to learn but which must be properly understood; whence we get the magnificent mission of the cinema, which is to contribute in the best way possible, first, to the education of the individual and then to that of peoples, and finally to lead to a higher conception of civilization.

It is more than ever necessary to so form men that social life shall be orderly and progressive, and based on an ideal common to all. We can reach this end only if we consider the citizen not as a wheel of the whole social mechanism, but as a lever.

"The city is not formed", said Augustus "of houses, porticoes, public squares; it is men who form the city".

Many centuries later, in our era, the Japanese Ruskin, Okakura, who was a wise man and a student of sociology, observed "that the true beauty of a city is to be found in the countenances of its inhabitants and not in towers or the decorations of monuments".

The whole of education is summed up in the aspect of serenity that it gives to a face; to which we must add, according to

the Socratic precept, "that state of virtue that is identified with happiness".

The most important thing is to think and teach so as to arouse and develop reflection and direct it in such a way that it may be led to choose on conscientious lines in respect to everything that constitutes its duty to itself and to others.

We must therefore endeavour to see that each one has this "morality which is the science of happiness", according to Leibnitz.

But the first and most important thing is truth, understanding as subjective truth that which may be reached by getting as near as possible to objective truth, which Vauvenargues defined as the "light of intelligence".

The educator cinema can and must be one of the greatest artificers of this mission. But, if this end is to be attained, it must be allowed complete liberty.

This necessarily leads us to certain considerations and the fixing of certain principles.

If, generally speaking, we are all in agreement now in regard to the scientific and scholastic film, there is still an enormous amount of confusion in regard to the educational film. No one, up to the present, has managed to make a clear classification of it, and this leads to continual difficulties in connection with its adoption, and even more complicated difficulties in the way of an international accord permitting the free circulation of this class of work, composed of pictures with or without titles and comments.

Questions arise connected with susceptibilities, spheres, diversities of conception and with the different methods needed for

teaching the same and adapting it to individual tastes ; all of which certainly does not tend to assist the formation of international cinematography. Whereas, what we are aiming at is an universal conception of the question, regardless of boundaries.

Even within the limits of a country itself, the cinema is apt to adapt itself too much to the desires and intentions of those who make use of it ; which is a fundamental error, and therefore, according to Plato, the source of all evil.

In our opinion, the educator cinema should be outside the contingencies of life and superior to them. There is nothing that can justify or excuse its use for the favouring of a given idea, an individual opinion, or the combatting of other ideas or opinions, however based on good faith such use may be, or however respectable the opinions set forth. The cinema must be an independent guide, in the widest meaning of the words ; able to discern and judge, to lead to a decision, to improve.

No one should disregard the possibilities offered by the screen if he wishes to use it for the purpose of explaining and affirming what he believes to be good and just ; nor can he do this if he works with sincere conviction, uninfluenced by sectarian thought. A sounder and completer education leads to a contrast of ideas, and the best instruction is that which endeavours to fight against the power of the lie.

As Dante Alighieri said :

*Considerate la vostra semenza
fatti non fosti a viver come bruti,
ma per seguir virtute e conoscenza.*

*Consider that thy seed
was not made to live as the beasts,
but to follow virtue and knowledge)*

As we have considered it for more than thirty years, the educator cinema cannot fail to work for the proselytism of minds and hearts. The whole central and fundamental problem of education lies there.

It is therefore necessary that this form of

cinematographic expression should be free from all shackles of groups and parties and beliefs, which in their turn may make use of it, but only on condition that they clearly proclaim their aims.

In the matter of education, the film must not be a fighting weapon but a presentment and explanation of ideas. It must not be tied down to a determinate field or to a determinate group, but must deal with every part of the universe.

Its ideal programme might be found in a passage of Duclos's *Considération sur les Moeurs*, which was written in the XVIII century but belongs to all time :

" I do not know if I have an exceptionally optimistic opinion of my century, but it seems to me that there is a ferment of universal thought that tends to develop, which may even be improved upon, but the progress of which should be assured and directed and hastened to the best ends of education.

" Instead, however, of preparing to carry out work, the tendency is to get concerned over some particular method of some special instruction, the application of which is anything but clear and defined, even if we do not take into account the reforms that would have to be made in methods.

" This is not the greatest utility that universities and academies could offer to the State. What ought we to teach ? How ought we to teach ? Every didactic system, and, we might add, every educational system ought to be founded on these two questions".

The educator cinema should not be subjected to discussion, to suspicion, to criticism ; but should be a good, sound lesson for the cultivation and direction of the intelligence, the enrichment of the mind, for making sure that each act shall be directed to the benefit of man and humanity.

Although it may seem that we are making too frequent an appeal to the classics they bring a very useful contribution in support of our thesis.

Virgil says: " Speak and teach with honesty, do not concern yourself about others,

teach according to truth, do not worry about anything ”.

St an earlier date, St. Paul said, writing to the Philippians : “ Whatsoever things are true, whatsoever things are honest, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report, if there be any virtue, and if there be any praise, think on these things ”.

Now, the picture, which must not be changed from its truthful expression, which is the truer in so far as it is the mirror of life itself, identifying itself with reality, is a better teacher of good and evil than the word. And we must see that it works only for good.

There is frequently an attempt to limit its function, forcing the screen to present doctrines that are, wrongly or rightly, controversial. This means that it is kept within the confines of lies, or of that negation which results from a pretended spiritual neutrality. It is forgotten that it is quite possible to expound sound ideas, the idea-power which is truly and eminently educational, without either taking sides or following a tendency. It is only in this way that we can satisfy all without serving the cause of one. Otherwise, the cinema becomes a cause of discord and no longer represents the educator in the noblest and widest meaning of the term, that is to say, for the benefit of all.

It is not sufficient to combat ignorance ; we must direct the consciousness so that instruction and education march step by step. The film offers every possibility for carrying out this task. While allowing to everyone the right of using the screen for anything that may seem useful or convenient to him, we must refuse anyone the right of altering its educational character and compromising its magnificent social and moral power.

Above all, from the international point of view, every film which tends to cause division must be rejected, and those only must be adopted which are likely to impress the principles of union on the citizens of one country and on the peoples of all.

Those who create educational films should be asked to take their inspiration from this thought of Boileau :

“ qu'en eux le vrai, du mensonge vainqueur partout se montre aux yeux et saisisse le coeur que le bien et le mal y soient prisés au juste ”.

Thus the time may come when we shall no longer need, as Charles d'Orléans hoped, to :

“ Prier pour la paix, le vray trésor de joie ! ”

for we shall have reached it through these educational forms which everyone should fervently help to spread.

THE CINEMA IN INTELLECTUAL AND SOCIAL LIFE

BY

Egizio de Luca.

FROM its modest beginnings the cinema has grown and developed until it is now called upon to carry out an important intellectual and social function.

It occupies an increasingly larger place in the educational field, as witness its growing use in schools and universities. This is an additional proof that the cinema is the best didactic means we have.

The human mind tends to pass from the concrete to the abstract, especially in the field of experimental science. The working out of scientific laws comes from a long, minute observation of facts, that is to say, of the phenomena that may be perceived by our senses. It is these latter, in fact, which enable us to search for the relation between cause and effect and to establish, consequently, the relations on which such laws depend.

All the most important discoveries are due to these observations, carried out with patient perseverance. The method adopted by certain schools, which teach children the laws governing the various sciences without first making them acquainted with the works that led to the discovery of these laws, is therefore open to criticism. Experience has shown, over and over again, that the best results are to be obtained by personal observation of the manifestations of nature, and that it is only when a child has carefully observed the objects of which we are speaking, that it can gain an exact idea of the laws we are trying to teach it. It is obvious, therefore, that the first appeal of the teacher should be, not to the memory, but to the intelligence.

It is well known that the object itself makes a more direct appeal to the mind than a

mere description of it. It is difficult to forget a thing once seen, whereas nothing is easier than to forget a thing we have known only vaguely by reading a description of it. That is why most writers of children's books illustrate their works with a lot of simple and easily understood drawings, which help young minds to a better understanding of the text. The cinema, therefore, which shows to children the thing itself instead of giving a more or less abstract description of it, is undoubtedly the best possible teaching means that could be used in school programmes.

Many European universities make use of the cinema, but it is still not nearly so extensively used as it should be. This fact should be brought to the attention of the principals of all educational institutions, that they may realize the marvellous possibilities offered by the cinema. It would be of great use, especially in elementary classes, to replace simple drawings by the film, and to give children, instead of the frequently heavy and pedantic explanations of the master, a vision of life itself.

What is the function of the cinema in intellectual life?

This is a problem that interests every branch of science and industry, without distinction; they are fields in which the cinema has right to intervene, since it can give the most valuable aid.

For instance, at the Conferences and Congresses organized for the study and solution of scientific problems and the study of geographical problems, the cinema would fill a very definite need, if only it were made use of.

A day will come when we shall have, as well as our great national libraries, public and private cinematograph libraries ; we shall be able to seek in their catalogues for the films we need and have them projected in properly equipped halls. In this way, without having to move from one place to another, we shall be able to see and study everything we need, which would be impossible without the cinema. Every science and subject will thus be open to all. It is a project that deserves to be taken into consideration by governments, for it offers infinite advantages.

The influence exercised by the cinema on the future of our intellectual and social life is made still more important by the valuable invention of the talking film.

If the film is used rationally in the moral and economic field, it will be able to fill great gaps and become one of the principal factors of moral propaganda. Our worst economic difficulties, especially those of the present moment, are founded mainly on psychological causes. The very depression through which we are passing is not founded on a real economic basis, but is due to the tying up of credit by the bad faith that reigns everywhere. Failures and bankruptcies, which before the war were considered as a dishonour by commercial men, are now considered by many as a new and easy means of getting rich. Men no longer trust one another. Financial scandals are brought to light day by day, and it is not difficult to understand why everybody is becoming suspicious and disinclined to trust his money to those who might make it yield an honest return. Fear makes people pessimistic, egoistic, and wicked.

Is there not some means in all this, or outside of all this, that will bring back order from chaos ? Something that will redeem our expiring society, make us kinder, bring the peoples together and reconcile them, in spite of the calumnies they are continually launching at one another. Something that will change the wickedness of man and lessen its effects, and replace it by a truce of goodwill and indulgence. By its formidable penetration of the masses, the cinema would seem to

be the most effective means that could be adopted to this end. The reformation of the world's morality and mentality, the re-establishment of the idea of "honesty", which is rapidly losing all meaning, is the task that contemporary States have to face.

People must be made to understand that the day of mad speculation has passed, that the time has come to give ourselves soul and body to honest, tenacious work, the essential foundation of peace and prosperity. A society cannot live without ideals, just as surely it cannot live without moral principles. We must therefore set to work to re-educate youth, and to this end the cinema, well thought out and under good control, may be, as Mgr. Verdier declares, of incalculable benefit. It can arouse in man the noblest sentiments, which serve to elevate humanity and give it a love for the ideal.

From this point of view, it would seem that producers have not yet seriously and conscientiously tried to find the way that will lead to such a goal. They are satisfied to concern themselves only with films that may be successful, without regard to their morality, their only thought being to *please the public* ; and their films laud immorality and obscenity, which, unfortunately, can be made to appear only too attractive.

We certainly do not mean to suggest that films which are heavy and boring and sermons should be put in the front rank, but it is quite possible for a moral film to be attractive, and there are certain problem films which arouse a sense of renewal and optimism in the human soul and stimulate the best part of the spectator's mind. The cinema, therefore, can and must be used for the welfare of humanity. It has a function of the highest importance, namely, that of spreading sound ideas that are free from any dangerous tendency ; properly used, it would be possible by its means to bring our contemporaries back to an ideal of honesty and duty.

From another point of view also the cinema has a lofty task before it, in the formation of public opinion.

Several films, such as "All Quiet on the Western Front", "Girls in Uniform" and "I am an Escaped Convict", have accomplished the task intended by their authors in a marvellous manner. They put forward visually and under new forms, the ideals of justice and humanity.

After this, we have the ideas expressed by two statesmen. First, the words of Benito Mussolini: "Out of a thousand inventions, there are three which mark an epoch in the history of civilized humanity: the invention of moveable letters, which was made at the end of the xvth century; the camera oscura which came a century later; and lastly, the cinematograph, three fundamental stages of progress for the human mind, three formidable instruments for the conquest and spread of culture.

"The cinema, which is still in the first phases of its development, has the advantage over the book of making a direct appeal to the sight, and forms, so to speak, a language

that is easily understood by all peoples of the earth; whence we get its universal character and the innumerable possibilities it offers for international educational collaboration".

These possibilities had already been touched on by Herriot: "Thirty years ago it would have been impossible to help humanity except in thought or books. Two modern discoveries, the cinema and the wireless, put the whole world at man's disposal at the present day. They are inventions which Dr. Faust himself could not have conceived, and the significance of which not one of us, even today, can appreciate".

In a word, for teaching, for the reconstitution of public morals and as an instrument for the propaganda of ideas, there is nothing that equals the cinema. It would be a sin, therefore, not to benefit by such an invention, which, by its power of suggestion and diffusion, penetrates the most obscure corners of the mind of the masses.

WOMEN AND THE CINEMA

BY

Frances White Diehl

(MRS. AMBROSE N. DIEHL) OF THE NATIONAL COUNCIL OF WOMEN, U. S. A.

The Women of the World Unite in Cinematographic Interest.

Women of all nations possess the legitimate right to be concerned with influences which effect their homes and the character building of the family. It is natural therefore that women throughout the world are making it their business to throw the spotlight on the Cinema and seek to know the true power and effect of this universal form of recreation and entertainment.

That the motion picture has an influence on our social thinking and social problems is obvious. We have had many expressions of opinion regarding the Cinema and its relation to social problems, but we have not had enough established scientific facts to substantiate them.

There is a variance of scientific opinion as to degree and power of the screen's influence, but we, as women, have felt a decided influence in our family lives, brought about by attendance at motion picture houses; therefore, we are determined to analyze and regulate the effect. It is our right to make our influence felt on all those phases of life which concern the happiness of our homes and our children. Truly, as women, this is our great and most immediate social problem.

Valuable and important studies have been made in many countries concerning the effect, tendencies and use of motion pictures in relation to moral, cultural and racial values. These studies are well worth the time of anyone who is giving serious thought to this phase of the motion picture.

There are tendencies and dangers in

motion pictures today that we must not minimize, and valuable experiments for their betterment are being carried on by women in various countries of the world. Responsible persons are exerting every effort to bring to the consciousness of those who make and exhibit motion pictures how great an opportunity is theirs for advancing knowledge and raising the ideals common in the hearts of nations the world over. We believe, as we note certain changes that have taken place in recent years, that the women of America with their constructive programme, have exerted a powerful influence to improve films. It is not the occasional critical and prejudiced voice that brings results, but rather the combined efforts of women in thousands of communities throughout the world whose influence cannot fail to be recognized.

The motion picture has found its way to the ends of the earth. Its dramatic appeal is universal.

In our complex and intense modern life, entertainment has become indispensable, and we must join forces to insure the portrayal of proper social and cultural values on the screen.

Safe-guarding the Younger Generation. Naturally the interest of women in the Motion Picture Problem centers about its reaction upon children.

The commercial picture has only occasionally been adaptable to children, therefore it seems logical psychology that children should be given special shows and should be discouraged from a general attendance. This has promoted many local

movements for Children's Matinées and Family Night Programmes.

Careful parents are thoughtful as to the influences on coming generations and exercise supervision over their children's recreation and cinema experience, but unfortunately we have a large percentage of neglectful parents — mothers who too frequently utilize the neighbourhood theatre as a day nursery and, regardless of the attraction, permit their offspring to spend hours in cinema houses. Therefore we must, as a civic duty, assist in protecting the unprotected child. This subject has been given much thought and study by most countries and by all conscientious individuals honestly concerned with the welfare of young people. The answer seems to lie in the necessity of demanding general improvement in film production.

It is a sad fact that the public does not always respond to the best in pictures any more than it responds to the best in literature, paintings or stage plays, so we must seek encouragement for worthwhile productions, which has been the fundamental reason for the organization throughout the country of hundreds of Community Better Film Councils and similar groups, to teach discrimination in motion picture attendance and to preview and bulletin the best pictures suitable for family patronage.

There have been endless surveys and attempted analyses of the effect of the Cinema "on children". After carefully studying dozens of such so-called surveys and reading innumerable statements on the subject, we are of the opinion that no one knows the exact extent of the influence of the Cinema or its results. Some authorities insist that the so-called "War" pictures are an influence for peace and give children an aversion to war, other psychologists are positive they create interest and inclination toward the excitement and thrill of war.

Dr. Phyllis Blanchard, of the Philadelphia Child Guidance Clinic, has gone on record with the following opinion :

"Numerous studies made by scientists have failed to establish any appreciable contribution to delinquency from motion pictures, but we do find the motion picture to be helpful in many ways.

"The overwhelming cause of child delinquency is maladjustments or neglect of training in home life. The plain truth is that the child's behaviour patterns are formed before the age of picture attendance, and that at least 85 per cent of child delinquency is traceable to home influence which took shape in a generation before the motion picture's popularity afforded a convenient alibi for those who do not, or cannot, provide helpful stimuli for their children".

Others believe the reverse is true. Nevertheless, we must "play safe" with the future generations and every school, association and organization should unite in a definite and concentrated effort to demand that motion picture producers, produce "up to the classes instead of down to the masses" and insist that the industry realize and recognize its obligation as an influence for good as well as for recreation and amusement.

The problem of children and their attendance at pictures is a problem which every father and mother might settle but which, unfortunately, they do not settle. Those children must be protected and guided toward the proper type of motion pictures. They are going to see pictures of course. Every child considers that his or her right. Our duty is to see that what the child sees is in keeping with its needs for wholesome amusement and fun, and at the same time that it is clean and suitable. We cannot shift all the responsibility on to the producers or the exhibitors; we can only share responsibility with them.

1) The report of the "British Commission on Educational and Cultural Films", which gave rise to the British Film Institute.

It is to be hoped that every country will create a similar institution, in close connection with the I. E. C., whose activities would be automatically altered and increased.

2) The project of the "National Council of Teachers of English (U. S. A.)" drawn up by Dr. William Lewin, to which is annexed a study by Lewin on "Cinematograph criticism in American High Schools".

3) The synthesis of thirty-six important studies and inquiries, compiled by Dr. F. Dean McClusky under the title of "Visual Instruction, its Efficacy and Requirements".

4) The report by Dr. Borris V. Morkovin of the University of South California on "The Cinema and Human Conduct".

5) The illuminating study by Dr. Howard le Sourd on the utilization of the cinema in religious education.

From the office of Mrs. Thomas G. Winter, "Public Relations of the Association of Motion Picture Producers and Distributors of America, Inc.", we have received a complete list of the associations which at present concern themselves with the distribution of educational films of the following kinds :

Scientific Educational Films ;
Commercial Films of Various Industries
Industrial Films ;
United States Government Films ;
Foreign Films ;
News Reels ;
Health and Welfare Films ;
Historical and Religious Films.

The Importance of Visual Aids in Didactics.

A vast amount of educational research has demonstrated beyond question the value of visual education. As this phase of the Cinema is primarily the object of this international conference, and the Institute has on file much exhaustive and important material relative to this subject, we feel that any contribution we attempt to make will be the proverbial "Coals to Newcastle", but in years of cinematographic studies and interest, we have assimilated some practical facts pertinent to the subject which may be emphasized to advantage in summarizing cinema usage.

Since the motion picture has become a major factor in modern life for the dissemination of information, knowledge and ideas, utilizing it for educational purposes has passed the pioneering and theoretical stage and has become a recognized medium.

The following are some of the most valuable recent reports and surveys from which we have gained much information and formed our conclusions.

Some of the established facts are that, through these use of films, students benefit by :

1) The stimulation of clear and original thinking.

2) Improvement in quality of memory and recollection.

3) Retaining permanent impressions.

A few important and practical uses of educational films are as follows :

1) The teaching of foreign languages. Verification of the effectiveness and methods of such use has been splendidly demonstrated by Dr. F. Juer Marbach, in several articles on the subject in the *International Review*.

2) Simplifies higher technical instruction.

3) A medium of disseminating propaganda for national issues, such as Public Health and Welfare.

4) The instruction which vocational guidance films afford in assisting students to choose occupations, thus aiding in solving the world problem of unemployment.

5) Adult education and general supplementary instruction wherever practical.

6) The propagation and preservation of the principles of technique in the great art-science of curing the human body is of vital importance to everyone.

Concurring with those who have given thorough and intelligent study to the subject, we strongly advocate and recommend :

1) The international circulation of films of an educational character.

2) The establishment of cinema archives for the preservation for posterity of exceptional films and historical events.

3) A central "Clearing House" for educational films and some form of authority governing their production and exhibition.

Cinema Influence on World Peace and Understanding. It has been said: "The cinema is a real League of Nations, binding the World together". The News-reels teach all men and all women that other nations are interestingly different, but basically and profoundly kin. We know it to be a world-wide vehicle of ideas and information. The great goodwill of the screen is its constant introduction of the peoples of the world to one another. School children feel that they have met Mussolini and heard him speak; they feel acquainted with all the great world figures in current events, with the type of building, the natural geography, the customs of the people in all the important nations of the world, even with the games the children play.

The Cinema has proven a potent purveyor between nations of intellectual ideas and national ideals. Through war-realism films, inter-racial friendship and the sympathetic portrayal of peoples, we have been taken out of our provincialism into the area of world affairs. We learn to know the great leaders of thought and government throughout the world and become intimate with the world and its problems.

There is no doubt that motion pictures have been a definite force contributing to world peace. However, we feel the recognition of the power of this contribution has been slow in coming from leaders in the peace movement. Impressions of the stupidity, the futility and waste of war have reached more people through the screen than would have been possible from any other source. It has brought out the sensitiveness of nationalism in the world today. No producer would dare to caricature or misinterpret the nationals of another country or show them only in their worst light. So, in general, pictures place their emphasis

on the best to be found among the people of other races.

Travel films have helped wonderfully in internationalization, for vast numbers of people travel the world over today and learn the habits and customs of those of other countries. The great value of many of these so-called travel films lies in the fact that not only are the physical aspects of a country shown, but also the thoughts and habits of the national mind are made clear.

American Motion Picture Industry under the N. R. A. Code. The National Recovery Act was adopted by our Government to regulate trade and

industry for public benefit, and has been instrumental in ironing out many of the industrial trade problems which have been constant subjects of controversy.

The drafting of a Code to cover picture production was an arduous, lengthy process covering, necessarily, conflicting points of view of various groups, and taking into consideration both the "big" producers and the independent groups, all setting forth opposing needs. Another complication was the fact that while making and showing pictures is a business, it is also an artistic and a social activity.

In framing the Code, the Producers, Distributors, Exhibitors and Consumers, were represented at the hearings — each group advocating code measures to meet their requirements and solve their problems. Aside from the physical and industrial questions, the "Consumer" — or public — which depends on motion pictures for a large part of its recreation, was an equation to be considered, and *Article VII*, under General Trade Policy Provisions, gave us the following:

Part I. The industry pledges its combined strength to maintain right moral standards in the production of motion pictures as a form of entertainment. To that end the industry pledges itself to *and shall* adhere to the regulations promulgated by

and within the industry to assure the attainment of such purpose.

Part 2. The industry pledges its combined strength to maintain the best standards of advertising and publicity procedure. To that end the industry pledges itself to *and shall* adhere to the regulations promulgated by and within the industry to assure the attainment of such purpose.

Controversial questions will be settled by established boards :

To guarantee every theatre operator, large or small, full opportunity for redress for grievances, the Code establishes two separate sets of boards, one to settle controversial questions, such as the maximum length of time that the first run exhibitor may demand and receive before the picture exhibited by him may be shown by exhibitors who have contracted to play the pictures subsequently, and the other, to hear every claim of grievance concerning the provisions of the Code, or otherwise, that may be asserted by anyone within the industry, and to determine the same.

Sanction is also provided for arbitration of individual disputes and controversies that may arise out of contracts between distributors and exhibitors through methods prescribed in the Standard Exhibition Contract, incorporated into the Code. In addition, the Code provides a method of arbitration to be pursued wherever under the Code controversial matters between certain groups in the industry are to be referred for arbitration.

Finally, there is created a Code Authority highly representative of all branches of the industry, on which will sit three representatives of the Government. This authority not only will administer the Code, but will sit as a court of appeal for any claimant who has been unable to obtain satisfactory redress from local boards.

Thus, the Code not only provides for self-regulation by the industry itself, but establishes machinery which should guarantee impartial adjustment of all differences

among the component units of the industry large and small.

Indications of Advancement toward Higher Production Standards.

To face any question fairly, we must look at it from all sides and omit generalizations that lack a basis in fact. All human agencies are a mixture of good and evil, and nowhere can this be more clearly seen than in motion pictures. A cheap and tawdry story may be offered us one day by a producer and the next day will bring us some profoundly impressive study.

The person who tells us that all films are without worth and unfit to see is the one who either does not attend movies or who selects, deliberately or accidentally, those films which are below standard and which are decreasing in number each year. There is no question but that pictures are improving, but they will continue to improve only in proportion to the public demand and support of better pictures.

Let us look honestly at the real service the screen has given to the world and see certain clear facts. Knowledge of the world we live in has been brought to us as to no other generation. We been lifted out of our provincialism into contact with every country on earth. Everyone now recognizes how great a gift of science has come to us in the motion picture, how powerful the screen is its inherent possibilities for service to mankind.

The results of the current depression have been reflected in recent motion pictures — the re-establishment of family life on a saner basis. A simpler and less luxurious home life is now being depicted. Another hopeful sign in the development of the motion picture is the recent tendency to deal honestly and realistically with important subject matter.

It is true, however, that people want to see the bright side of life on the screen — the way the other half live — not the drab pictures of life they live themselves. They find on

the screen liberation from daily cares and personal problems.

With additional leisure, due to shorter working hours, attendance in picture houses is increasing, and it becomes more than ever important that socially-minded individuals and organizations unite in their programmes for collecting and distributing cinema information to serve as a reliable guide to the family in selecting its motion picture entertainment.

It is particularly significant, in view of the growing demand for more pictures suitable for children, that this year's production in America contained 72 pictures

endorsed by the previewing groups as suitable for juveniles, and that 71 % of the total year's product for 1933 was passed on as proper cinema entertainment for general distribution.

We have shown that the best way to insure high class motion picture productions is to create a taste for them, and we are glad to report that our hope to do so is being realised, while future production lies in the fact that hundreds of thousands of men and women throughout the country are working earnestly to make America's most democratic amusement conform to the highest standards of taste.

DISCS AND SOUND FILMS FOR FOLK-LORE RESEARCH

BY

Prof. Cesare Caravaglios,

OF THE UNIVERSITY OF ROME.

THE three means at present available to the musician desirous of collecting traditional music are :

- (a) transcription by ear on music paper;
- (b) gramophone disc recording ;
- (c) sound film recording.

Transcription by Ear With regard to the **on Music Paper.** case of transcription by ear, this method is the most uncertain of the three, since, granting that the musician who takes down the music is possessed of extreme sensitiveness and an extensive musical training — things not always to be found — the musical notation in common use does not provide all the signs corresponding to the notes to be registered.

The fundamental structure of ethnical music, as a matter of fact, does not lie in the musical scale in common use, but rather in

a natural spontaneous scale so that the pitch of certain sounds in folk-lore melodies does not always coincide with the twelve semi-tones of the tempered scale (1). This is the reason why all the popular music transcribed by ear that is available today is very different from the same music when actually played or sung by the people of its land of origin.

The limited possibilities of musical memory combined with inaccuracies in

(1) Prof. SILVESTRO BAGLIONI, who has given up a great deal of his precious time to the study of this matter, has shown that the same phenomenon can be observed in the case of popular musical instruments.

In fact, he has been able to form a system of measuring the pitch of the sounds of musical instruments peculiar to different peoples. (See S. BAGLIONI : *Contributo alla conoscenza della musica naturale* in *Rivista di Antropologia.*, Vol. XV, Section 3, and Vol. XVI, sections 1-3).

transcription render this form of registering music still more unsatisfactory and make it difficult to follow the popular singer. The latter, in order to help the transcriber, is obliged to repeat his song several times, and, in repeating it, he introduces small changes without even being aware of it. All this makes the work of transcribing almost impossible (1).

Students of the subject have for some time been looking for a man who would invent a satisfactory method of transcribing popular or ethnical music, as the experts in collecting dialects have been able to do for the special dialect sounds in local speech. So far no successful system has yet been evolved for registering popular music by ear and hand. The solution of the problem does not seem likely to be arrived at very easily, since it is connected with another difficult and wider problem, the new art music notation.

To modify the musical scale at present in use means starting a complete revolution of the harmonic system, which is in fact the actual musical system now in common use.

At the same time, musicians in all countries have always sought to give music a richer notation, that is by using half-tones. We have examples of this in the efforts made by Mationkine and Wichnegradsky Leurié in Russia. R. H. Stein Möllendorf and Ma-

ger in Germany, Silvestro Baglioni, the physiologist who built a harmonium for half-tones in Italy. The most fruitful experiment, however, is the one made by Alois Hahn, who illustrated some time ago at Prague some of his compositions based on studies of Arab music and Czechoslovak peasant airs, based on a scale of quarter-tones.

The *maestro* Adriano Lualdi, who was present at the recitals of Alois Hahn, states that the impressions received while listening to the *fantasies* of this remarkable musician composed with his novel system are like those received from a form of music which has not yet found its *ubi consistam*, proper development or the range which is available to traditional music. It is still too closely bound up with the old school (2).

Transcribing on Gramophone Discs.

The difficulties encountered in transcribing by ear traditional music moved Raffaele Corso to write in this connection that it was not yet possible to make accurate ear transcripts (3). Seven years later, in 1930, at the International Congress of Popular Art, held at Antwerp, Liege and Brussels, in September and October of that year, I proposed that the transcription of folk tunes and other forms of traditional music should be made from a disc already

(1) Recently a German, OSKAR FISCHINGER, has taken advantage of the possibility of transforming the graphic signs of a small film into sound. He has devised a system of drawing rather than writing music, depending for his principle, on the luminous transcription of sounds.

Fischinger's experiments tended to find out how a musical idea can be fixed directly on the film with the maximum expression. Naturally he did not confine himself to the three millimetres of film of the usual sound track, but carried out his experiments on the full width of the film. According to his own statements, the experiments proved very successful.

The signs traced on the film permitted Fischinger to establish a graphic notation for numerous instrumental sonorities, marks for soft, loud and very loud playing, and certain other musical effects. He obtained some surprising results which, according to him, open the way to amazing possibilities in this field of research. Various sound effects of pitch

and timbre are it seems obtainable, which ordinary orchestras cannot arrive at. E. Houston Peret in the first page of his collection of popular Brazilian songs (First series: Musical Library of the Guimet Museum, Oriental Library, Gunther, Paris, 1930) publishes a table explanatory of the signs used in the collection for indicating the various shades of tone (quarter tones, semi-tones, three-quarter-tones, etc.), as well as timbre, which can be guttural, nasal, chesty, from the head, with closed lips, etc. The International Institute for Popular Music has, among things, undertaken the task of studying and applying a new method of registration and notation of sounds (See FERNANDO LIUZZI: *I canti del popolo*. "Istituto Internazionale per la Musica Popolare". Ed. Alpes, Milan, 1929, page 270.

(2) See A. LUALDI: *Musical Voyage in Europe*, Alpes, Milan, 1929, page 270.

(3) See R. CORSO: *Folk-lore*. Pub. by Da Vinci, Rome, 1923, p. 41.

recording the air or song instead of from the voice or instrument of a singer or player. I gave an illustration of the method I suggested by playing some discs I had made of the cries of Neapolitan street vendors.

I remember that my transcriptions appeared and actually were perfectly satisfactory and answered all scientific requirements.

The gramophone disc, by doing away with the actual singer or player, can reproduce the melody to be transcribed as often as is desired, and what is still more important the reproduction is always the same, which renders the transcription on the music sheet much easier. In this connection, I should like to add that the German philologist William Doegen, creator of the Berlin sound archive, has invented a device which, when it is applied to a gramophone, enables the same phrase, verse, line or word to be heard as often as is desired without stopping and restarting the machine.

Special Gramophone Apparatus. Any collection by ear of popular music requires, it should be understood, the employment of a large number of musicians specially trained and fitted for the work. The use of the gramophone allows even those without expert knowledge of folk-lore or music to make collections of popular music. This is a fact of the first importance in our studies.

Two gramophone firms, the *Schackto-graph S. G.* and the *Siemens Tonscheiber* have manufactured two recording machines which are easily handled and portable. By means of these machines, it is possible to make a record on a disc in the most inconvenient circumstances.

Nor is this the whole story. There are other advantages. The *Schackto-graph* costs little, that is just over £ 40 and it is capable of giving an excellent "spiral", that is reproduction of sounds. Discs of any material with a maximum diameter of 25 cm. can be made with certainty of success. The

other apparatus, the *Siemens Telefunken Tonschreiber* costs rather more, but guarantees greater precision in the recording of sounds. This machine was used by the two firms in question, who still hold patent rights in the two recording machines which thus remain only available for a privileged few, barring their use by the mass of amateurs who would be able to use the machines with great advantage in the work of gathering together popular airs and music.

When the patents run out, and, it becomes possible for all firms in the gramophone business to manufacture similar apparatus, these machines will be within the reach of everybody, and the problem of collecting and transcribing our traditional popular music will be solved.

Transcribing by Sound Film.

But since every scientific programme is closely connected with the development and improvement of the instruments used in connection with it, folk-lore students cannot but turn their attention to another system for documenting folk-lore, that is the system of the sound film which is, fortunately, in full development today.

The sound film, in fact, offers the expert not only the possibility of an exact reproduction of popular music and speech, but, and this is a comforting fact — it also gives an expert truthfulness to life, the surroundings in which the song or speech are sung or said, that is to say, all the data necessary for a study of the documents under examination.

The sound film today has only begun the cycle of its diffusion. It is at present unfortunately, a very costly means of research. When in ten years or so it is available for everyone, not only on account of its low price, but also owing to its simplicity of handling, we shall then really be in a position to say that we have definitely settled the question of collecting folk-lore documents in general and items of folk-lore music in particular.

The Sound Film Connected with Scientific Needs.

Let us look at the advantages which a sound film can offer for the study of popular traditions.

To examine the question thoroughly, we must go back a little and look into the matter of the silent film which in its way and within its limitations, has already solved the problem we are discussing.

It is possible today for anyone interested in this matter to buy for a small sum — I believe about £ 10 — a reduced size motion picture camera. A machine of this type will allow the owner of it to make reduced size pictures of anything and everything that is of interest to him in his studies. This is a first step on the path to folk-lore research by means of the motion picture camera. The possibilities of the silent film, however, are not sufficient to meet the demands of modern science. Even rapid registration and reproduction on the screen of all kinds of movements, slow motion and accelerated running off are not enough today. Science demands that the sound film be brought in to its aid.

A country dance taken with the silent film camera means a half documentation of the fact, since, though it may show the movements of the dance quite perfectly, it contains no trace of the accompanying music. The modern conception of folk-lore music considers gesture, word, music as three closely inter-connected elements. For the people the gesture is a help for the word, especially when the word is sung, since then the singer is definitely under the influence of passion which he expresses and interprets in his song. When we have said this, it is easily seen why these three elements should be studied both as a whole and in their dependence and individual characteristics. The sound film answers these requirements perfectly since with the aid of the photo electric cell, it can register on the film surroundings and action, music and word in perfect concordance.

The documentary folk-lore picture which came into being during the domination of

the silent film, was inevitably forced to make use of sound as soon as the sub-standard sound film became a practical and widely used medium.

Let us now examine the characteristics and the advantages of the reduced size silent film.

The Reduced Size Film in Connection with Popular Traditions.

The first advantage of the silent sub-standard film over normal depends on its width, which varies from 17 mm. to 8 mm., that is from a half to a quarter the size of the width of ordinary 35 mm. film.

Reduced size 8 mm. film has recently been placed on the market by the Kodak people. It is obtained from 16 mm. film on which, by means of a special device, first of all an impression of half the film in all its length is made ; then the other half reversed.

It is possible, using this system, to obtain four times the number of pictures it would be possible to obtain by using ordinary 16 mm. in the ordinary way. This is because in the space of a photogram of the 16 mm. we get four photograms of 8 mm. Consequently the length of the 16 m. film, which is normally 30 mm., is reduced to 7.50 m. for the same number of photos, which means an economy of 60 %.

Naturally, attempts have not been lacking to arrive at a standard size for the reduced size film, and it would appear, according to the views of the experts, that the 9.5 mm size is the most suitable, both in the matter of price and technical exigencies.

It is essential to note here that the great improvements made in film emulsion during recent years allow enlargements to be made in a very satisfactory way. The reduced size film implies necessarily a reduced size projector. Today reduced size motion picture cameras are no larger than an ordinary camera and are, from the technical point of view, perfect in the matter of operation, optical effects, etc., while they can even be used under disadvantageous conditions such

as may arise from a weak artificial illumination.

The machines do not need tripods, and can be used instantaneously on any subject and moved from point to point, thus allowing the object being filmed to be followed with almost the rapidity of the human eye.

A special apparatus, the *Kodacolor* permits the projection of coloured pictures. The reduced size film is large enough to allow of satisfactory documentary pictures being taken on it.

Reduced sized films are, by law, manufactured of non-inflammable material, which permits of their being stored anywhere and in any box or piece of furniture, just as if they were books.

Reduced size projectors are also of small dimensions, and can easily be installed without any necessity for a special fire-proof cabin which makes it possible to project any sub-standard silent film where there is electric light supply.

These facts, which at first sight, may seem to have nothing to do with folk-lore studies, have on the contrary great importance in this connection since they reveal to the student, the possibilities of the technical means at his disposal.

Unfortunately students of folk-lore questions do not as a rule know of the means at their disposal, and the collections of folk-lore material which are made from time are generally limited to gathering what is easy and close at hand, and has probably been already collected in some form or another. This is, without doubt, one of the reasons why folk-lore studies have not taken on that proper scientific character which they should have.

Folk-lore research today cannot afford to neglect these means, and every folk-lore student should also be a good amateur cinematographer. He should own a reduced size silent film camera, and as soon as is possible a sound film camera. The expenses will not be heavy, and he will be in a position to work with certainty and seriousness.

If he cannot do anything else, the folk-lore student can hire a motion picture camera. The film required is sold at a price which compares favourably with that of books. Then by selling copies of the pictures made, the folk-lore expert can hope to make some profit or, at anyrate, to cover the cost of his material.

Contribution of Cinema Amateurs. There is a large number of cinema amateurs in Italy. Anyone who has examined their work is aware what excellent material is to be found among it. Amateur cinematography is also well advanced among other nations. There are numerous national and international associations and clubs which are continually promoting gatherings and cooperative and united endeavour. Collection of folk-lore documents and especially musical folk-lore cannot do without this valuable aid.

Research work done at the desk or in the study is anti-scientific. It requires a large number of collectors spread around the zone under examination. *The Opera Nazionale Dopolavoro* (Workers Leisure Movement) is deeply interested in this matter, and has every right to be. The good work done this field by the O.N.D. is well known. The National L.U.C.E. Institute is also entitled to take a share in this form of research work.

In fact these two bodies, assisted by first rate experts, ought to organize, select, encourage and develop the work of the amateurs in the domain of folk-lore research.

The work of the motion picture amateurs will not diminish the value of the work of scientists in this field. It goes without saying that not all the work of the amateurs will merit serious consideration. It will become the task of the expert to distinguish, in this connection, what is really important in the collection of material made by amateurs. This will follow the normal course of events which generally passes through three stages : collection of material, selec-

tion of material, scientific use of material chosen.

The field of folk-lore research is in itself a very interesting one, and the cine-amateurs will be delighted to operate in a department which is new to them and to see their work appreciated and made use of by scientists.

Documentary Folk-lore Film.

Before concluding these few remarks on the means available for folk-lore research, it will be well to lay down the requisites and characteristics of a documentary folk-lore film.

From the point of view of organization I recommend that it be based on a plan which has been carefully prepared before any pictures are made, so that it may be quite clear what the film is actually attempting to do.

This scenario will assure the sound film having a logical development and being harmonious in all its parts, clear and precise in content and in the method used for making it.

It will be advisable in preparing the plans for a scenario, to make a distinction between what is essential and what is secondary. The sub-titles which must be short and clear, though they may also be numerous, serve as an indication to the student or expert on the nature and contents of the film.

The organization and preparation of the scenario must be made by an expert in folk-lore matters. He must also see to the "shots" that are made, must choose the sets, and scenes, the backgrounds, etc.

The operator is not called upon to do anything more than settle purely technical questions, giving the folk-lore expert all the benefit of his cinematographic knowledge. His work, however, is of the greatest importance.

A documentary sound film can be put together by attaching a number of "shots" taken at various places and intervals of time. This too is work in which the voice of the

folk-lore expert must be supreme, with the operator assisting him in technical cinema matters such as cutting, lighting, printing, etc.

The folk-lore expert must therefore select and arrange the partial "shots" according to the subject which it is proposed to illustrate. He must connect these various "shots" together, compile the sub-titles, see to the perfect synchronization of the music, words, gestures.

I would like to insist on the necessity of avoiding any straining or falsification of sounds reproduced, such as the quality of the music of musical instruments or of human voices. I know that, owing to certain defects in the technique of sound reproduction, this advice is not always easy to follow, but it is an essential point in a documentary sound film.

It is generally possible though for a clever operator to reduce sound distortions to a minimum and practically to eliminate them.

The fact that I have given so much space to the sound film as compared with the silent picture must not lead the reader to suppose that the latter is no longer useful for folk-lore research. This is not the case. The silent film has still a great deal of work to do in this field, and can render innumerable services to science.

In conclusion, I should like to say that a documentary folk-lore film, in order to be useful to science, must be based on the real thing and not on something like it. That is, there must be a hundred per cent respect for truth in films of this kind. I will explain this with an example.

A documentary film on Neapolitan folk-lore will only be a real documentary picture if the fisherman of the Mergellina pull in their nets, sing their songs, etc., as they really do, without any false and artificial stage effects, which will destroy the value of the picture.

Folk-lore research, from this point of view, has not made many valuable contributions, with the exception of some attempts

by the O. N. D. and the L. U. C. E. I am sure, however, that we shall not have to wait long for such films.

I hope therefore that experts and students

will not fail to take every advantage of this powerful means offered by modern technique for undertaking an interesting but difficult work.

THE PRODUCTION OF TEACHING FILMS

BY

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Features of the Teaching Film.

BY the "teaching film" we mean the kind of film which is suitable for the school and can be used during lessons, like any other didactic means, at the right moment. The distinctive feature of the *teaching film* (1) is its *instructive content, clearly defined according to the principles of pedagogics and adapted to the particular type and grade of school.*

School teaching is necessarily based on a foundation of determinate presumptions and acquirements, because the pupil must learn to make use of these presumptions and acquirements; it is only in this way that he can develop his mind and understand the problems of life. The *teaching film* is therefore to some extent in contradiction with the *cultural film*, since the latter is intended for a public which has received no particular instruction in the subjects presented and is gathered together by chance.

The cultural film is intended for a public which requires a greater recreational quality in films and is therefore satisfied with a more or less superficial and explanatory

content; whereas the didactic film must aid the pupil-spectator to understand and to realize relations which are not easily perceived. The school, therefore, makes other and greater demands on the film than a cinema hall or other places where documentary films are shown to the general public (2).

Necessity of Collaboration.

If a film is to be suitable for use in schools a number of things must be taken into consideration: the psychology of the pupils, the function to be entrusted to the teacher, the necessary details of collective teaching. The *master* only is in a position to judge of these qualities, but his aptitude and knowledge are not of themselves sufficient for the creation of a film which responds to rigorous didactic requirements. A film is a much more complicated production than a text book, and the conception, staging and making of a film cannot be done by the teacher only, except in a few isolated cases. The master is well informed as to pedagogic requirements but he is not familiar with

(1) We deliberately refrain from using the words "*educational film*" (*Lehrfilm*) because this expression covers not only the scholastic film produced for teaching purposes, but also instructive films of every kind such as those the popularization of knowledge.

(2) We must point out here that we have not the slightest intention of condemning cultural films, on the contrary, when they are in their proper place we welcome them as readily as the teaching film in the school.

the special technique and aesthetics of animated production. On the other hand, the *cameraman*, through his understanding of art and psychological knowledge of film suitability, knows what is necessary and how, for instance, to arrange a scene so that it will impress the spectator. He is a master of photographic technique and knows the possibilities of perfect photography, but he knows nothing of the essential points that must be made to stand out in a teaching film. He sees things too much from the aesthetic point of view and from that of the production of striking views and scenic effects to be able to realize that truth to detail must form the foundation of a teaching film. Considering the clear and precise language of the animated picture, it is necessary that the scenes respond absolutely to reality and scientific exactitude; and neither the teacher, who is simply a pedagogue, nor the cinema-technician are by the nature of things equal to this task. We need the assistance of a third person, therefore, one who is a *specialist* on the matter treated in the film. An authentic *teaching film cannot, consequently be created except in collaboration with teacher, specialist and cinema-technician.*

With the object of bringing about the collaboration of these three indispensable persons for the creation of a didactic film, the "*Schweizerische Arbeitsgemeinschaft für Unterrichtskinetographie*" (SAFU) (Swiss Association for the Advancement of Teaching Cinematography) was founded in Switzerland. This institution has at its disposal, for its cine-technical works, the well equipped Photographic Institute of the Federal Institute of Technology so that the requirements of technical film production can be met. In this way it was possible, in spite of the difficulties encountered to take a number of films in which scholastic requirements took first place. These films proved to be extremely useful for the ends they were intended to serve, and we therefore give a brief account of the criteria on which they were based. In the examples

cited, we have given the preference to the *demonstrative film*, (*Anschaungsfilm*) but school requirements apply equally to the *educational film*, (*Erziehungsfilm*) whose object is to act as guide to children and arouse lofty aspirations.

CONSTITUENT ELEMENTS

Adherence to Teaching Aims and Scholastic Methodology. The first requirement in a film used for teaching is its complete adherence to didactic ends and to the methodology of school work. It follows that a film of this kind, like all other teaching means, must not go beyond the school curriculum but must be an exact and necessary derivation of teaching.

So far, in the film industry, the search has been for what is rare and interesting. What the school requires, instead, is the search for what may serve to develop knowledge and faculties and at the same time constitute a vital value. The fact that a subject is interesting and a knowledge of it useful is not a sufficient reason for its introduction, with the film, into the school. The school is facing a large number of objectives that must be reached within a more or less limited period, and can deal, therefore, only with those subjects which are of decisive importance and have utilization possibilities which are of vital interest to the pupil and his intellectual formation.

Thus, films showing the preparation of sparkling wines, or caramels, or "The Siam Hemp Industry in the Island of Cebu", "Pearl Fishing in the Indian Ocean", or films on the making of pianos, or on furs, "From Rabbit to Sealskin Coat", or "The Marvels of the Deep", some of which are considered as official teaching films, are far from what properly constitutes a teaching film, and are more in the nature of pleasing and interesting entertainment for the spectator.

Nor can a film on *shipbuilding* be con-

sidered as a generally utilizable didactic, film, in view of the specialization of the subject dealt with; whereas a film on the raw materials and elementary workmanship that form the logical groundwork for the building of a ship would properly come under this heading: as, for instance, the treatment of timber and metals and the fundamental works for building operations.

It is undoubtedly one of the school's tasks to show operations of a complicated nature and to order teaching on the lines of practical life; but before proceeding to complicated things, it is necessary to lay the foundations with great care. For this purpose, the only useful film is the short one that deals concisely with one single subject. It is not often that the teacher is able to explain very complex relations and phenomena of life and nature, and even so he must exercise the greatest care in his choice of subjects and means of illustrating them, and must never undertake the examination of a complex thing without having previously given the necessary explanations of the fundamental elements that constitute it.

This is why it is practically impossible to use in teaching any of the numerous cultural films that have been produced for the popularization of so many subjects, although such films may occasionally be usefully given as *supplementary or recreational films*.

The first outcome of the necessity of keeping the film within the teaching limits of scholastic methodology is that *we must establish a scheme of films needed for the various subjects and the different types and grades of schools*. This system was adopted, first in Austria and then in Switzerland. But the lists of films proposed by teachers who have not yet had sufficient experience in teaching by film will have to be carefully revised, for it is a fact that many pictures which appear useful enough for teaching purposes at first sight have not been found so in practice. When making out the list of necessary films, therefore, the persons to be interrogated are those teachers who

have great didactic experience in teaching by film.

It must be kept in mind, also, that with our present means and *without using films*, it is quite possible to satisfy didactic requirements, and that the film will therefore become a necessity *only* when it can make teaching richer, more impressive and more in correlation with life, without trouble or loss of time.

Perfection of the Film.

Films intended for teaching purposes must be true to life; they must not give rise to misconceptions or to suppositions that will not stand criticism by scientists or specialists. As a matter of fact, unfortunately, the teaching films on the market cannot be said to comply with these conditions. For instance, the text of a film showing the oscillation of a thin and a thick string teaches that the vibrations of the thin string produce a high note, while those of the thick string produce a low one. But this would be the case only if the two strings in the film were to show a differing number of oscillations! In an animated cartoon showing a gas motor, the piston compresses the gaseous mixture in such a way that, if it were to happen in fact, the gas would catch fire before the return of the piston and the cylinder would explode.

One of the first principles of teaching should be to simplify things, but such simplification always implies a certain amount of falsification. For this reason, the simplification process which inevitably contains some errors should only be pursued in so far as it is indispensable for the requirements of teaching.

It must be remembered that a *true* projection is always efficacious, and that it will have at all times authentic didactic value and may be used also for more advanced pupils. An example of the kind is given by our animated cartoon on the beating of the heart, which was produced with the collaboration of a professor of physiology and a primary school teacher. It is so

simplified that its projection is useful for pupils aged 13-14 years, and it is no less true that the medical student can learn from it. Such *perfect correctness* requires the *collaboration of a specialist*.

In natural history films, and especially in those dealing with the life of animals, much stress must be laid on the behaviour and natural movements of the subjects. When the subjects of these films, instead of being in their natural settings, are taken in the studios of the film company where unnatural surroundings, the film director's orders and the artificial light prevent normal behaviour, the result is an absurdity. The same may be said of a film which showed a nest of eagles and in which stones were thrown to cause the eaglets to move.

When presenting movements in a film, all artificial motions must be avoided; as, for instance, in a workshop film, where the workmen are made to move and gesticulate in a useless and unnatural fashion. All these false movements may be of use for the general public, but they serve no didactic purpose.

School and science demand a transcription of real life under unrehearsed conditions. The teaching *camera-man* must forget his usual illusive function and record faithfully only the work of nature.

That is why films of animals taken in their natural surroundings necessitate, in addition to a perfect scientific knowledge, an extraordinary amount of time and patience if such films are really to show the essential characteristics and movements of the animals in a way that is superior to ordinary fine pictures arranged and made according to aesthetic principles.

We do not find this impression of complete reality, which is so necessary in serious teaching, in the greater number of popular cultural films in use. If, for instance, we eliminate from that interesting documentary film of an expedition, "*Simba, King of the Desert*", all those episodes which might disturb the course of teaching, and try to make a natural arrangement of the re-

mainder, as was done at Zurich, we get nothing but some insignificant groups of animals which just move from one side of the screen to the other.

It follows, as a natural consequence, that a perfect teaching film can result only from the intelligent collaboration of master and specialist, the choice of whom is extremely important, because they must not only understand each other but must also be able to work together with pleasure. The ideal thing would be to find one person combining both requirements, as happened in the case of a film of ours, on seagulls, and another on cellular formation. In the film on the "Beating of the Heart" a primary school teacher and a university professor collaborated very successfully.

Movement, an Essential Point. The third requirement of the teaching film is that it must *represent only those scenes where movement plays an important part*. We do not mean that completeness should be pushed to the point of introducing unsuitable things into a film. Those things which are not suited for the film must be shown by stills taken at the same time, because lantern slides, when adequate, are much better from the pedagogic point of view than the film, which moves rapidly and limits the teacher's conduct of his lesson. Stills *taken at the same time as the film* also serve as a pedagogic preparation for the latter, with the result that it is not only more easily understood but may be much shorter than would be the case without the use of stills.

Films and Lantern Slides. Those desiring to produce teaching films should keep in mind the disadvantages inherent in moving picture projections and so arrange that they appear as little as possible. One of these disadvantages, from the teaching point of view, is the fixed nature of the film, in which nothing can be added or omitted or particularly emphasized. We therefore do not want the

film in school except *when it allows of a noticeably better illustration than can be given by lantern slides*. This constitutes the *fourth* requirement of the school (1). The film is a teaching means that must be used with judgment, not only because it entails considerable expense, but also because, according to our *fifth* requirement, *the film should show nothing that can be equally well shown by the usual experimental school method, either by a visit to nature or to some workshop or factory*. The best film in the world cannot equal the perception of reality in which all the senses share.

But as visits of the kind or experiments in class take a lot of time and can be conducted to a limited extent only, the film may be satisfactorily utilized as a complement, with considerable saving of time and without any loss of efficacy in the presentment.

Our experience in this connection shows that a film can give, in a quarter of an hour and with all the necessary tranquillity for the pupils, all that could be accomplished in a half day's visit. This, however, is the case only when the pupil has been properly prepared beforehand by the teacher.

In the film on the seagull we showed that a work that took seventeen days to accomplish, under favourable conditions, can be seen in a quarter of an hour, provided, as already stated, that there has been a previous preparation with the aid of stills taken together with the film. This picture is a convincing proof for the most sceptical that a well made film is sometimes of higher value even than an instructive excursion, not only because it would not be possible for children to remain in the marshes for seventeen days, from five in the morning till night, and because it would not be possible to put an observation tent at the disposal of each pupil, but also because *the film observes with the eye of an expert*. The film on cellular division shows the processes of the

schematic division of the nucleus in a uniform and complete sequence, in a way that it would be impossible to observe in the living cell. It could be shown only by comparing an infinite number of intermediate states of dead and coloured cells. The film on "grafting" shows that it may still be useful to make films of objects which could be observed easily in their natural state under certain conditions, because unfortunately it is not always possible to obtain these conditions, especially in town schools; and in any case, the possibility of projecting these objects on the screen in dimensions much larger than nature enables a whole class to follow the operation without distraction from surrounding objects. It is obvious that in these cases the film is in its right place, because nature can never be so well observed in school as through the film.

Need for Short Films. Long films are tiring and cause the pupil's mind to wander, whereas short films may be preceded by a good preparation on the part of the master and can be perfectly understood and leave time for a discussion. In my capacity as head of an educational film bureau, I had the right to cut films, and made use of this faculty even after some lessons had been given with them, reducing the films to the most efficient length.

Explanatory Notes *Each film should be accompanied by a short introduction to the subject that is being dealt with, touching on the essential points of the film and facilitating the teacher's preparatory work.* This principle is deduced from the conception that the teacher must be in position to utilize the projection from every point of view, without there being anything that he is unable to understand, even though some of the details may not be necessary for the specific purposes of teaching. The illustrative sheets or notes will frequently give information as to why certain acts

(1) Film and other means of instruction.

or aspects have been photographed; as for instance in our illustrative sheet on the film "cellular division", which explains why the usual form of chromosomes given in books was not chosen, but the rod-like form, and also why chromosomes have different forms.

It may be objected that the teaching film, as we see it, would be rather dull, but we are of opinion that in teaching humour should be the teacher's prerogative and not be forced into the film. We are not, however, opposed to the idea of a film whose interest lies in the facts presented. For instance, in a film intended for pupils from the second to the third scholastic year illustrating "*How a Table is Made*", the first scene shows children making a rudimentary table-top out of a packing case and nailing it on to four legs. When one of the children sits on the table, however, it collapses. The scene is comical and may appear to be unnecessary but is, on the contrary, quite necessary, because it helps the explanation of why this table-top must be attached to the legs by transverse lengths of wood, which otherwise, the children would not understand when they see the carpenter at work on a table. Although we are on principle opposed to the introduction of superfluous scenes in a teaching film, there appears in the above film, in addition to the carpenter, a boy of about the age of the pupils of 7 or 8 years for whom it is intended (1). This boy serves to draw the attention of the spectators to the exact points required by the *action represented*; and his appearance in the film is justified by the fact that the carpenter is making a little play table for his son Jean. These scenes however, which seem to belong to the ordinary cinema, have nothing in common with those documentary films which are full of episodes that have no direct relation to the subject;

they are completely justified by the psychology of the youthful spectators, and would be superfluous only if intended for older children.

Since school requirements must be imposed in the most definite way at every stage in the production of a teaching film, and since the failure to observe this rule is responsible for the fact that we have so far practically no perfect teaching films, we have been compelled to give precedence to these requirements in our discourse on *the creation of a teaching film*. This production process, to which we referred when citing films produced by the "SAFU" as examples, begins with the *question or demand*: what subject matter could be made more living, complete and striking by means of the film? When the "SAFU" began to consider the production of its first film, we decided that the *bird life* was such a subject.

The second stage was the *choice* of a suitable species of bird, the whole of whose life was to be filmed, with due consideration to pedagogical, technical and economic requirements and also to the means at disposal. We decided to film the "*Life of a Seagull*" as a sample of *bird life*, being guided in our choice: a) for *pedagogical reasons* because, being a winter visitor to our shores, this bird is known to our pupils and because we were able to show it to them in the prelude to conjugal life, building its nest and sitting on its eggs, as well as the hatching of young, their feeding by the parents, the care of the young, the search for food, flight, the care of the plumage, the difference between the plumage of young and old, their collective life, migration and protection; b) for *technical reasons*, because the seagull is a large bird of striking appearance, which builds its nest on land, seeks its food on land and in the water, is not very sensitive to noise or very intelligent, and because the picture-making could be done easily in a protection park on the spot; c) for *economic reasons*, because the marshes where the seagull congregates

(1) This film is made use of in lessons on the mother tongue as well as in lessons on the subject dealt with in it.

were easy of access, and there was a hut there where our collaborators could take shelter without expense, and lastly because the technicians and specialists who were looking after the pictures, being stimulated only by the desire for scientific research, had offered to do the work without remuneration. Another reason for making this choice was that we had Dr. Noll, an excellent pedagogue and specialist in ornithology, to help us, and another specialist as cameraman who had made his studies in photography and scientific cinematography at the Photographic Institute of the Federal Institute of Technology.

As an illustration of *craftsmanship* for the first teaching grade, we chose the film on the making of a table ("How a Table is Made") because it showed a *relatively simple operation* and required the use of a *material of primary importance*, namely, wood; because we could thus show the manufacture of a simple but important object *in common use*; and also because, together with the hand labour, we could give a demonstration of the importance of *machine work*.

The Scenario. When the question of the subject matter has been settled, we reach the *third* stage, namely, the *drawing up of the scenario*, in which teacher, specialist and cinema-technician must collaborate. This is not an easy task, but is necessary because the success of the film largely depends upon it. Unless a properly detailed scenario is prepared before beginning work, the final composition of the film will show annoying gaps or scenes which are badly arranged or do not fit in with the rest; and these defects invariably occur if one of the three collaborators in the film is lacking. Before beginning to shoot a film, the "SAFU" has the scenario passed by a special committee of experts, composed of masters in the particular grades of teaching for which the film is intended.

Choice of Location and Collaborators.

When it has been decided to make the film, we reach the *fourth* stage, that is to say, the *choice of a suitable place for shooting the scenes* and of the *persons who will have to play some part in the film* or are *needed for the picture-making*, if this part of the preliminary work has not yet been done.

For the film on "Grafting" we chose a suitable tree near which it was possible to place the apparatus without too many complicated arrangements; and we had the assistance of a specialized fruit-grower who thoroughly understood his job. For the before mentioned film on the making of a table, we had much more difficulty in finding a carpenter and a boy to take the part of his son who were able to play with sufficient naturalness to avoid giving the young spectators the impression that they were acting a part, children being very critical observers. For the other film, on the registration of heartbeats, we had to find a draftsman who was able to carry out the animated cartoons after consulting the professor and studying the necessary anatomical plates.

We had to get the help of an amateur for another film, on locks, who obliged us by constructing a model, ready to work, on the same type as the Båle-Augstone.

Finances.

Even when all the collaborators of a film work without remuneration, money is still one of the indispensable necessities for producing a film, and it is not always easy to procure it. One of the reasons is that this type of film does not at present yield any financial gain, and commercial firms are far from anxious to finance films of the kind, while, on the other hand, the authorities are not easily interested in the plans of work presented to them. At the "SAFU", where we produce films instead of merely talking about them, some members of the society advanced the necessary capital

in the hope of being reimbursed by future profits, which, luckily, did not prove a delusion.

Technical Preparation.

When the execution of the film is assured from the material and financial point of view, we come to the *preparations of a technical order*. Keeping in mind all the obstacles to be overcome, the qualified specialist and the cinema-technician study the necessary arrangements and prepare what is requisite in the way of apparatus and accessories.

In order that we may have a wider field of action when making a film, we must have excellent lenses of different focal distances. The technical equipment, above all, must be first class for the production of teaching films.

There is also the lighting problem. When the shooting is to be done out of doors, the most suitable position must be fixed beforehand and also the best time of day, so that the work can be carried out in the shortest time possible. Sufficient light must be assured for inside shots, so that every detail will appear clear and precise.

Although the carpenter's workshop where we took the film on the making of a table was well lighted, we had to use a number of extra lamps, which consumed 12,000 watts.

It is often necessary to make preliminary experiments, because every film presents new and unforeseen problems. When the regular shooting has once begun, it must proceed without interruption, because unity of time and place is of much more importance in teaching films, for pedagogical reasons, than in theatrical films.

The making of the seagull film necessitated the experiment a year beforehand in the marshes. After this first trial, we set up a suitable tent and a collapsible boat to carry the heavy apparatus. We had also to discover some way of protecting the apparatus from damp or a possible fall into the water; and lastly, we had to arrange the shed, which was open to the

air, so that it could be used for the camera. In all the shooting operations we had to make use of the photometer, and therefore we not only had to consider the high frequency installation and the lenses from the point of view of perfect working and capacity, but everything measurable had to be controlled: the indications of the tachometer, the shutting times, scales of distance, indications of light intensity. The result showed how indispensable all these operations were. Three weeks were needed for this complete preparation, but we encountered no difficulties afterwards; indeed, everything worked to perfection.

Taking the Pictures. The collaboration of teacher, specialist and cinema-technician is more than ever indispensable at the *seventh* stage, which constitutes the actual shooting of the film.

However well prepared we may be, new situations frequently crop up, and it is necessary to know how to provide for them instantly, with a prompt decision that indicates the right lines to follow. The latter must take into account not only the material but also the pedagogic and technical aspects, and only too often it is anything but easy to find the necessary and suitable point of conjunction between the three needs.

In the case of the seagull film, the material and pedagogic requirements were simplified by the fact that specialist and teacher were combined in one person. But the cinema-technician frequently had to protest, on account of the insufficiency of the light, the lack of depth of focus, the unsuitability of the background which, as a consequence of the lack of colours in photographic reproduction, invariably came out differently from the way it appeared in nature. But thanks to this collaboration, a satisfactory solution was always found.

The repetition of shots must be avoided as far as possible, because many objects and phenomena do not lend themselves to be taken over again exactly as they were

the first time, and the attention of the pupils would be distracted during the projection if there were a change of site.

If the success of a difficult shot is not sure, it must be done over again, possibly with different poses, lenses and diaphragms. It may be found economical to use twice or even three times the meterage of negative needed for the finished picture. We may mention that, for the seagull picture, we exposed about 1,000 metres, of which, after a careful selection, we were able to use 700 metres for the film to be projected at lecture and 310 metres standard size (125 reduced size) for the edition intended for teaching.

Printing and Development. It is when we reach the *eighth* stage, which consists of the printing and developing of the film, that we know whether the shots have been successful or not. There are risks in this field also, and the developing should be done, if possible, by the cinema-technician who made the film and knows the results that should be obtained.

In any case, automatic development should be made use of in normal cases. To obtain the best results in delicate negatives it is as well to use frame or drum development with which it is possible to keep constant control and to adapt the developer. In printing also, the expert is much better able to bring out all the essential values.

Critical Revision. After the printing has been done, the film must be revised by the master, specialist and cinema-technician, who examine and discuss the various problems: what should be repeated or changed, and how the changes should be made.

The seagull film was made with such care that we had a sufficient length of perfect film. In the film on grafting, a close-up had to be repeated for pedagogical reasons; it had come out too small and had to be done on a larger scale. The film on cellular division had to be shot a second

time, the first rushes not being perfect from the technical point of view: a certain trick process, expressly invented for this film, had been used, and the operators were not altogether successful with it the first time, owing to its novelty. During the shooting of the film on locks, one of our collaborators knocked against the counterpoise of the boat, causing it to wobble, and the whole length of film had to be done over again. The movement of the boat had happened just in the moment when the water was lowered, so that it was impossible to cut out this part of the film, as one could do with a theatre film, filling up the gaps with a title or close up. A second shooting was necessary also for the film registering heart beats, and some of the animated cartoons had to be altered, the specialist realizing that there was too much movement in the point of intersection with a strong connecting tissue.

Cutting and Composition of the Positive. This task is of the greatest importance and occupies a lot of

time. It must be carried out in collaboration by the specialist, teacher and cinema-technician. An outsider cannot form the slightest idea of the number of times each scene must pass through the observation and control apparatus before it can be cut successfully.

Choice of Titles. The choice of titles must be made by the teacher, with the aid of the specialist. The titles must be short and sloganlike, serving more for the information of the teacher than the pupils, to whom a lengthy film could not be shown without proper preparation.

There is no fixed rule for titles. Thus for instance, in the film on the making of a table, a number of short sentences and exclamations were chosen by way of exception, giving the idea of a conversation between father and son. These writings should be read in chorus by the class. Without betraying the content of the pictures

to come, they arouse curiosity, as, for instance, in the sentence, "Go away, Jean, it is dangerous!", which comes before a picture where the plank is cut by the band saw.

Comment. The necessary comment on the film means a good deal of work for both specialist and teacher. Comments must not consist of treatises or scientific reports on the subject of films, but presuppose that the master has a full knowledge of the subject within the limits of his teaching. The object of these comments, which have a pedagogic character, is to facilitate the master's task of including the film in the didactic field and explaining the projection.

Critical Examination. Up to this point the film has been conceived and carried out by a small group of persons who have worked at its production with all their hearts. But we now reach the fatal stage when it is *submitted to the critical examination of masters who have had nothing to do with its creation* and must make use of it in their classes. Shortly after this examination they must use it in a trial lesson before their pupils, and only thus will they be able to judge of its practical results. Unexpected reactions are seen at these first trials, especially in the lower classes.

These experiments suggest that the cinema-technician who shoots the film should attend during the lesson, so that he may be able to eliminate from the scenes everything that may be the cause of confusion and misunderstanding on the part of pupils. The cinema-technician should be able to realize these points before shooting, whereas the teacher cannot perceive them till afterwards. After the deliberate criticism by the teacher and the involuntary criticism of the pupils, improvements may be made when necessary; but in any case, observation should be noted and kept in mind when making the next film.

Master Copy and Reduced Size Negative. The last work that remains to be done, if the teaching film

thus created is to fulfil its purpose, is to make a perfect master copy and take a reduced size negative from it, which will be more suitable for schools, especially on account of its lower cost.

An excellent reduced-size negative can be obtained by means of a reduction from a standard size master positive which fulfils all technical requirements; and a positive obtained from a negative of this kind is generally more perfect than the one usually obtained by an immediate reduction from the original negative.

The advisability of having a good master copy and a reduced size duplicate negative is suggested by the fact that a teaching film has not such a short life, generally, as a theatrical film, which disappears from circulation a short time unless there is something exceptional in it. Good teaching films get out of date very slowly, and even years after their production there is a demand for copies to replace those which are worn out (1).

The Industry and the Teaching Film. When producing teaching films, we have not followed the usual methods of the cinematograph industry. It must be understood at once, however, that if the industry wants to concern itself with the production of this type of film, it must begin by adapting itself to the requirements of the school, because no matter what kind of propaganda or pressure is exercised by the industry, it is out of the question that a film which

(1) Up to the present we have always made standard size films and then reduced them to the 16 mm. size. In view, however, of the fact that the grain of the reduced size film is now finer and that apparatus is being constructed for the direct taking of reduced size films on a professional basis, there is every reason to hope that we may be able to shoot films directly in this reduced size without deterioration in the quality of the pictures taken. The necessary outlay for a film would thus be considerably reduced.

does not respond rigorously to didactic requirements will ever have any success, mainly in consequence of the control exercised by teachers, who quite rightly have the greatest influence in school matters.

The industry might perhaps point out that films produced in accordance with the requirements of teaching would cost too much, while there would be no prospect of making much profit out of them. It must be admitted, unfortunately, that the school will never prove a particularly remunerative market for the film industry. This is especially the case at present, teaching by the film being in little use. But if perfect teaching films are produced, the demand will grow rapidly, so that if the industry is ready to be satisfied with a moderate profit, it can perfectly well undertake the production of teaching films. Associations such as the "SAFU" will first have to clear the way still more, perhaps, but it would be advisable that this preparatory work should be done, from now on, in collaboration with the industry; and this could be done if the latter would agree to renounce making any considerable profit for the moment and contribute to the work by training *camera-men* capable of collaborating intelligently with specialist and teacher and ready to give their enthusiastic aid.

* * *

Adaptation of Existing Films. We must devote a last word to the adaptation of existing films with the idea of using them in teaching, because this was our starting point at Basle and Zürich and

we have had considerable experience in this line. Although there is a widespread idea that something good could be made out of existing films, it is only rarely in practice, that it is possible to make a good teaching film out of them, either because many of the scenes are much too short to be used in class or because many points which are of importance in teaching are totally lacking and especially because the films have not been made for the purpose of teaching.

At first, we had to content ourselves with films of this kind and gained valuable experience in class by their means. But the production of teaching films by making use of existing negatives can be considered only as a modest complement to the teaching film. Perhaps the situation would be improved if we could complete these films by adding new shots.

* * *

With the object of getting a practical understanding of the production of teaching films, the "SAFU" undertook the work of production from beginning to end. We have shown one of the ways that lead of the goal. Undoubtedly there are other ways suited to other situations and bodies, ways in which the educational film industry can lend profit-assistance. All these ways may lead to the goal aimed at, provided that we never lose sight of *teaching requirements* and the useful collaboration of teacher, specialist and cinema-technician. The requirements of teaching are high, but they must be satisfied because nothing is too good for the school.

REPORT ON THE EDUCATIONAL CINEMA IN CONNECTION WITH THE PRINCIPLES OF BIO - PEDAGOGICAL METHODOLOGY

BY

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IN giving its enthusiastic support to the first International Congress of Educational Cinematography, the Institute of Bio-pedagogical Education intends to illustrate the importance of cinematography not only from the point of view of its utility as a didactic aid, but as a valuable instrument in *Bio-pedagogy*.

It is necessary to insert here a short parenthesis regarding the science of bio-pedagogy in which we have the honour of being enthusiastic pioneers. Bio-pedagogy is the science which proposes to educate and instruct by taking advantage of the laws governing the medicine of the constitution, psychology, and pedagogy, and also taking into due consideration the three aspects of the student's personality, that is the physical intellectual and mental aspects.

Education which follows this unitarian and correctionalist principle abandons the old concepts of abstract pedagogy in order to strike out along new paths in human rationalized education. It follows very definite laws and rules which aim at finding an individual educational formula for each pupil and of establishing the most suitable educational method.

This new educational science which takes for its basic concept the grand principle of the vital unity of the living being, established in human biology by famous scientists like Nicola Pende, teachers in biotypology, the German doctor Frederick Kraus, the French biologist Le Dant, the

physio-pathologist Grasset and others, presupposes the existence in every Institute, in connection with education based on the fundamental principles of the new science of a doctor having a wide experience in the laws governing human growth.

The Edmondo De Amicis Institute of Milan which we have the honour of representing at the first international Congress of Educational Cinematography, though containing its effects within the limits of the general lines of work of the Nicola Pende Bio-typological school, has followed for some four years, in its educational activity an individual and bio-pedagogical policy and has collected a notable mass of documentary material suitable for demonstrating the utility and efficacy of the bio-pedagogical method in educational methodology for the didactic training and instruction of human material in the pre-puberty or puberty stage of life.

None of the ancient or modern pedagogic systems, not even the most famous of them, are capable of saying all that bio-pedagogy can already say after its recent inception. It has revolutionized traditional educational methods which we assert to be absolutely inadequate and insufficient for modern needs.

The Instruments of the Intelligence. Through following this method, we have arrived at the following conclusions amongst others: — intelligence is a gift which, owing to the necessary disequilibrium of a mental

character caused in young people by the phenomenon of growth, often remains lazy and inactive among the young scholars of middle and elementary schools. We can say — to use an expression which is rather fashionable at the present time — that there are active intelligences which form the minority, and there are frozen intelligences. The active intelligence is the one which makes use of its instruments for action, which the frozen intelligence hardly does at all, or in an insufficient manner.

The instruments of the intelligence are the attention, the memory and the will, without an appropriate use of which, the intelligence remains unproductive that is, a frozen asset.

The attention, the will and the memory are influenced, according to the doctrines of constitutional medicine, by the endocrine glandular system. It is possible to exert an influence on them through apotherapeutical excitation and methodological stimuli.

Let us leave on one side, for a moment, the therapeutical form of excitation and confine ourselves to the methodological method. This latter is essentially scholastic and follows the principles embodied in the old adage, that is, that use improves an organ and can indeed sometimes create one.

Attention, will and memory are three recurring elements of the same principle, and action in one of these instruments, is manifested in all three.

The Cinema as a A lesson given with Methodological Aid. the use of the motion picture has a powerful effect on the attention. The pupil remains isolated from the external surroundings which might distract him (surroundings distraction, due to persons and things) and is also freed from the distraction deriving from distant agents and our sub-conscious mind (galloping fancy, sensory influences existing in the organism in a latent condition or through the association of ideas or through the effect of contrast).

The pupil who follows a lesson given with the assistance of the motion picture is almost entirely free from distracting influence. His attention is carried against his will, as it were, to the screen, while his intelligence, drawn along by the attention, is found to understand and take interest in the lesson, abandoning completely that state of torpor in which it often remains during an oral lesson.

The student is isolated by the darkness of the projection hall, and nothing can be the object of his attention save the picture being shown on the screen. The attention thus acts automatically on the will.

The pupil leaves the filmed lesson with a mass of concepts already acquired and developed. The teaching he has received has permeated deeply into his mind, and the text-book comes to fill its place as guide and counsellor.

The Experimental film on Physics. We proved all this when we made an experimental film on physics, the actual direction of which was undertaken by Dr. Enrico Purgotti in collaboration with the "Million Film" of Milan.

This film which we shall show to the members of the congress is a year old, and if we had to make the picture over again, we would cut out the sub-titles and make the picture more lively by introducing some extra shots. The film in question is a lesson which illustrates the notion of work and energy with a lively and amusing succession of scenes in animated drawings. The picture concludes with an illustration of aspirators at work, a little mannikin being used for the handling. Dr. Pargotti decided on this semi-human figure (devil or mannikin) so as better to illustrate the effort made.

"The introduction of a picture like this" says Dr. Pargotti in his report "can be made human by the use of animated drawings which would remove all ideal aspects from the picture".

Our experiment aimed at making the

lesson a thing to itself as a didactic aid that should act directly on the attention, and we believe we succeeded in our aims which were really of a twofold character. The carrying of a scholastic programme or curriculum such as we have outlined required much more than the projection of one film. A regular cinema archive is required such as would be suited to the mental needs of pupils from the lowest elementary class to pupils about to leave school.

Education of the We must meet an

Active Attention. objection here that is sometimes raised. Does the motion picture tire the pupil. We are of the opinion that it does. The film tires, both because it demands all the pupils' attention owing to its interest, and also because it arouses in the pupils a nervous state of mind deriving from the darkened hall and the strain of a constant attention. But, after all, the scholastic film is short, and always will be short. It lasts two minutes at the most and generally not more than 15 minutes. Thus, there is little risk of the pupil really becoming tired in such a way that his attention can no longer be given because he tends to become sleepy.

There still remains the question of fatigue, which would be an embarrassing consideration if it were not heavily counterbalanced by the advantage of a greater rapidity of learning of the lesson. Here we come to the nucleus of our methodological experiences.

The curriculum in middle schools is weighty and abundant in subject-matter and imposes on the student an extra-scholastic work, that is, home work, which sometimes proves injurious to the health. If the film can succeed in increasing the capacity of the attention — and we know that it can — the repeated effect of the motion picture will render the attention more agile and capable, and will increase the effort of the will which comes from the joy of learning. The memory which is strengthened by exercise will also show signs

of improvement. We have therefore to realize the fact that the motion picture does sometimes exercise an immediate action which causes fatigue to be set up in the pupil, owing to the active efforts of the attention and at the same time a mediate action which renders the pupil quicker in learning and appreciating the various subjects in the curriculum.

It is not difficult to arrive at the conclusion that the use of the cinema answers the requirements of a rational system of mental hygiene since it allows the pupil to learn in a reasonably short period of time what required two hours or more with a frozen intelligence, and also necessitated home work.

Our experience in this field of activity has been confirmed by similar oral exercises made successfully in various classes.

Urgent Necessities. These, in our opinion, are the aims and objects of the scholastic film, the practical operation and working of which we will now examine.

As things are at present, scholastic cinematography appears to be in a poor and disorganized condition. The teacher is not properly prepared or ready for his work, while few schools are equipped with even an inexpensive film projector capable of satisfying modern requirements.

In my opinion, there is no department of study or education which the motion picture cannot well enter.

The teacher will automatically become acquainted with the new aid when there is an abundant supply of films, and he has at his disposal a simple, easily handled machine which he can use himself. Whence comes the necessity of insisting that all schools supply themselves with a film repository, a projector and a screen. When it is not possible, owing to financial considerations, to provide a projector, a hall should be prepared for occasional film projections.

All nations ought to use the same film format and sound films when it is desired

to express sounds or speech. There should not be any sub-titles, but the teacher should illustrate the filmed lesson from a manual.

Conclusion. As a result of the foregoing remarks, we can sum up as follows :—

(1) All scholastic pictures should be made after taking due account of the physical, psychical and mental conditions of the young people for whom the films are intended. Every producing firm should request the opinion of a constitutional doctor on its scholastic pictures before releasing them. The doctor's name should be given in the illustrative brochure of the film.

(2) All countries to come to an agreement to use standardized reduced size sound films.

(3) No film to last longer than 20 minutes.

(4) The film production to be under regular State control and the international distribution of such scholastic pictures to be entrusted to the Rome I. I. E. C.

(5) National and international prizes and awards to be offered for films.

(6) Films to be lent to schools with State financial help, and no distinction to be made between free and State schools.

(7) Classes for preparing teachers in cinema methodology and human biology to be instituted at the universities and in normal schools.

THE CINEMA AND THE YOUNG PERSON

BY

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THE penetration of the motion picture into the field of pedagogy is, at any rate in theory, a reality, as a vast bibliography would prove, were the official documentations of the fact not sufficient evidence. The educational possibilities of the film have been examined most carefully and thoroughly by the experts, yet a glance at catalogues and articles shows a strange disproportion between the amount of objects of works actually made and other objects, which, despite their eminent desirability as pictures, have been almost forgotten. We are aware of numerous studies which deal with the phenomenon cinema under moral, hygienic, social, political, sanitary and educational aspects, but the mass of work accumulated on these subjects only stresses the relative poverty of works given

up to an analysis of the phenomenon *child* in the light of the educational films.

This observation of ours becomes necessary at a time like the present when there is a general tendency not to consider the educational period concluded with the end of the scholastic age, but rather to wish for and develop a post-scholastic organization which has as one of its objects not to leave the individual to the free exercise of his unguided judgment.

I confine myself purposely to this observation, since this is not the subject which I propose to deal with here. Rather is it my intention to consider the case of the student who is passing from the elementary to the middle schools. Unfortunately, there is no particularized bibliography available for this case.

It would be absurd to suggest that the rules and regulation as laid down for the use of the educational motion picture in the elementary schools can be applied successfully for middle schools. There cannot even be any satisfactory adaptation of the one for the other. The pedagogues of the cinema have not, in my opinion, sufficiently illustrated the radical differences existing between these two types of school and the didactic differences which inevitably result therefrom.

"Infancy and adolescence are perhaps the two periods of human life which are most distinct from one another" states Mendousse (1). One of the greatest errors of the new pedagogy as revealed in various countries, as, for instance in Spain, is to consider secondary classes as a development of elementary schooling. This is great mistake, for "the adolescent is neither a big child nor a young man" (2). Perhaps, the delay in adapting the film to the requirements of the middle schools (3) depends on the confusion of ideas existing among educational pioneers concerning this category of schools.

We will point out a few facts and circumstances which allow us to distinguish the psychology of children in the elementary classes and adolescents in the middle schools.

We may take this occasion to agree with Spranger that "in adolescence, manifestations of the spirit are not solely considered subjective realities inasmuch as they are enriched with personal experiences. "And again:" The adolescent is not capable of creation in any field since his vital activity is limited to absorbing the culture furnished

him. Man creates his life, following external experiences, not as objects of curiosity, but as vital stimuli".

It is particularly during the period of adolescence that these vital constructions are formed (1).

Consequently, the picture of the world which the educationist must place before the eyes of the adolescent should present certain special characteristics. The film-catalogue and window opened on the world (2) — must adapt itself to the new requirements of the physical development of the student. Let us see what these requirements are.

Scientific Specializations.

The passage from primary to secondary teaching presupposes, from the point of view of subject matter and teacher, a rudimentary specialization which may be likened to the unity of the elementary school. The student will consider every subject in the curriculum apart, and pedagogy will be able to proceed under the best conditions. In the fields of geography and natural science, the teacher will find it easiest and simplest to make a gradual use of the valuable motion picture.

Documentary and Artistic Films.

Must all films that are shown in schools be documentary pictures? This question, which is a grave and wide one, has not been properly examined in the numerous books dealing with the elementary school. One might say, perhaps, that the documentary film is best suited for teaching or instruction, and the artistic film for education. This statement leads us, first of all, to admit that the documentary picture is indispensable in the various stages of development of an individual, and that it is advisable to make it conform strictly to the various stages of such development, that is, taking due ac-

(1) *L'âme de l'adolescent*, Paris, Alcan, 1930, page 1.

(2) *Id.*, p. 295.

(3) Barcelona, for instance, has faced the question of the educational film boldly, taking the motion picture for teaching purposes to the university. See Review of the I. I. C. E. for Sept. 1932). It has not introduced the educational motion picture into the "lyceums".

(4) There does not even exist a specific output of films for middle schools.

(1) SPRANGER. *The Psychology of the Adolescent*, Chap. II.

(2) G. DIAZ-PLAIA. *Una Cultura del Cinema*, Barcelona, 1931.

count of the various requirements of the elementary, secondary and high schools. Our second observation allows it to be established that it is advisable to give a preference to artistic films of an educational nature in the various classes of the middle schools.

It is clear that the psychical conditions of the adolescent show certain characteristics some of which we have already noted, and counsel the choice in middle school teaching of formative stimuli, while informative stimuli should be allowed to form the chief spiritual pabulum of the student in the high schools and at the university. In both cases, however, the essential thing is to acquire that knowledge and sense of the subject which is obtainable during the course of secondary studies.

Are we then to argue that only purely documentary pictures should be shown to the children of the elementary schools? This is, in fact, the truth, though we may include some short comic films, preferably animated drawings. It is clear that this selection of pictures has as its principal object the avoiding of any premature development of the critical spirit. At the same time, it can only be of value in those countries where children are rigorously forbidden entry to ordinary theatrical cinemas.

The Censorship and the Adolescent. This point leads us on to another. This is the rational organization of the censorship, the necessity of which is beyond any question. The constitution of Weimar and the constitution of the present Spanish Republic expressly recognize this necessity. The power for suggestion of the motion picture justifies this unanimity of opinion. The censorship has generally a double aspect, a police aspect which implies the suppression of any attempt at revolutionary propaganda or apology, and a moral aspect which tends to eliminate from films scenes in which passion, vice or exhibitionism go beyond certain limits, which

limits will naturally vary according to country, epoch and customs. (There is much to be said on these two forms of censorship and they way in which they are exercised).

This brings up another subject which we should like to examine. Does the government censorship succeed in rendering the cinema spectacle fit to be seen by children and adolescents? Official opinion is somewhat divided on this point. Often enough the restrictions imposed by the censorship are not inspired by principles of a moral character. The regulation which forbids the entry into San Salvador of persons under 30 for instance seems to us based on hygienic considerations. Generally speaking, the legislative measures are not very rigorous. Out of 37 countries which have juridical dispositions on the cinema, 27 neither consider or make any effort to defend the healthy of the adolescent. Some form of moral control is more general, though often enough this is of a negative character. Cinema commissions lay down the hours for afternoon cinema shows, regulate the admission of children to picture palaces unless the children are accompanied, interdict certain kinds of shows, classify films not adapted for young people, obliging exhibitors to publish the fact in their advertising matter. What is lacking, however, in all this legislation is something positive in the way of a law dictated by an enthusiastic creator of educational examples likely to eliminate the evil and exalt the good. Among many examples, we will choose one very interesting Italian case. Article 157 of the Decree of April 1926, after having authorized the censorship to forbid young people seeing films which, on account of their passionate nature or their crime or detective aspects might be capable of exercising an evil influence on the sentiments adds: "films treating of works of art, cities, panoramas, historical scenes, folklore, facts from natural history and scientific experiments are pictures which may be considered as being especially suitable for children and adolescents. So too are pic-

tures which help to exalt the civic and religious virtues, the sacred character of the home and family sentiments, mother love, the spirit of sacrifice, acts of heroism tending to exalt goodness, valour, energy and glory".

I should like to conclude these remarks on the censorship with a final argument which seems to me of very considerable importance. We must take particular care to safeguard the moral sentiment in young persons, and not be satisfied only with exercising vigilance over particular scenes of any film. In this connection, the abandonment of Marlene Dietrich starring in Sternberg's picture "The Blue Angel" seems less dangerous than the kind of sentiment which is to be found in the rest of the film in question, that is the sympathy which is extended to the students' vicious precocity, and the shameful fall of the old preacher of a morality which he does not follow himself. The same observations apply to Marcel Pagnol's "Topaze".

The Question of Fantasy. In the foregoing remarks we think we have shown the necessity of giving a strictly real and documentary character to films destined for the primary schools. The middle schools, on the other hand, in view of the requirements of modern students need not avoid films infused with a certain amount of fancy (1). Does the cinema develop the fancy?

Personally, I have always maintained that the motion picture which is a typical product of our age, is an anti-romantic art which seeks for exact contours. I have also put it on record that every lapse from reality into fantasy ought to be considered from the strictly cinematographic-pedagogic point of view as suspect.

How then are to avoid the cinema constituting, if not a danger, at least an obstacle

to the fancy? There is a type of imagination which manifests itself in a desire for novelty, in a longing to find untrodden paths, and it can be satisfied by any geographical report or book of travel. There is, on the other hand, another kind of imagination which finds its sustenance in legends and myths, and will discover proper satisfaction in the kind of motion picture advised for use in the middle schools. There are, for example, epic films which can be used during a lesson in literature. Some years ago, I had an opportunity of seeing a film version of the Iliad. In the film, Achilles was represented by a small muscular man something like a mountebank. A few years later, Fritz Lang showed us his first cinema version of the *Nibelungen*, in which Siegfried was shown as a supernatural man, airy and spiritual, Fritz Lang explained that if Siegfried triumphs over the dragon, it is due precisely to his divine origin. If we are going to explain the power of the gods solely by the girth and force of their muscles, what will remain of their mystic quality? When a mythic personage reaches the limit of un reality, the cinema producer's art lies in making the divinity of the character appear as something disconnected from his physical force, something that resides in a kind of aureole, visible only to the imagination.

Where are we to find the cinema material for use in our "lyceums"?

Certainly not in the scholastic film repositories where subject matter is prepared *ad hoc*. This is not the place, however, to go into the question of the errors committed in school books, educational text books, and didactic films which often err owing to an excessive concentration on the purpose of the book or picture. The pedagogue must look for the educational picture in the existing production, that is in the cinemas

(1) The first items of learning and information should be imparted in a rigid fashion. It does not much matter if the young people's fancy embroi-

ders these points of instruction or if also they read books of adventure.

(2) G. DIAZ-PLA A. Id. *Estetica*, III, 47.

on the screens of which the film producers preach their ideologies to the public (1).

What cinema repository or archive could provide us with a picture like "Remorse", for instance?

The Film as Art in School Curricula. Summing up our remarks, the non-documentary film will prove a powerful aid for the teacher of history or literature as great outstanding events in modern life and great works of art attract bit by bit the attention of film producers.

Finally, — and this point seems to me of

(1) This fact alone would suffice to justify the use of standard size didactic films rather than reduced formats such as 16 mm.

especial interest — the cinema must and can be treated for a *lycée* pupil for the first time as an *art to itself*, a live independent universal art of our times, full of an aesthetic of its own, and full of suggestions of eternity, something in fact that is much more than a simple, supplementary, plastic adjunct to a lesson, or a moral example.

The motion picture then must be studied and shown as a thing with an aesthetic value comparable to the other arts, with which it has analogies and differences, which could well be made the subject of interesting studies. It is a means capable of spreading a knowledge of the peoples in the world, their nature and psychology, It is a factor in the pacification and fusion of the nations.

REPORT ON THE USE OF THE CINEMA IN PRIMARY TEACHING

BY

Jean Brérault

THE cinema projection machines intended for use in the primary schools in France are fairly numerous. Some calculations place the total number at about 12,000, of which more than half are used in primary schools.

At the same time, it is not very usual for the motion picture to be employed in classes as a complementary illustration of a lesson. I do not mean by this that the projectors, lie unused in dark cellars covered with layers of dust. This does indeed happen sometimes, but generally the projectors are regularly used.

The teachers are well acquainted with the cinema performances known as "scholastic projections" organized in some specially reserved hall of the school.

The projections are of two kinds. At the one kind, which takes place out of school hours, ex-pupils attend and also their families. These shows are of great utility, and it is to be hoped that they may develop and extend, for their educational value is high for young people who have left school too soon, to begin work in the factory or office.

The other kind of projections are dedicated to the students during their regular hours of study. These projections, which have a definite educational object and are often at the same time recreational, are attended by the pupils, and are in the nature of rewards for their good will and diligence in study. Often enough, their object is limited to this, without their having any

particular didactic purpose. They are not made to follow any special method but given more or less at haphazard and according to the possibilities of the moment as regards the choice of pictures.

This Kind of Projection Cannot be Called the Teaching Film. — That definition must be meant to signify "a document which the teacher uses for illustrating a lesson together with lantern slides, observation and experiments".

It may be said that the utilization of the film understood in this way is at present impossible in the great majority of cases.

The scholastic curricula of the primary classes are officially determined. For each course, whether, it be elementary, middle or superior, and for each subject-matter, the teachers plan a series of lessons which are given, during the scholastic year, according to a carefully studied progression.

Each lesson, which is closely connected with the preceding and subsequent lesson, is based on a definite part of the curriculum. The teacher certainly does not hesitate to refer to past lessons if he considers it necessary. He makes comparisons and points out differences. Real live teaching cannot be given in minute doses or administered with parsimony according to an immutable system. On the other hand, too much liberty in teaching is equally harmful. The great thing is to avoid wasting the attention of the pupil which must be used to the best advantage.

A charge is often brought against current films, and often enough not without reason, of dissipating the pupil's attention. One film can be used in three or four lessons when the subject dealt with is complex. Our primary teaching is simple and the pictures which illustrate it should also be simple. Such films should only include scenes which are suited to a given lesson to the exclusion of all other lessons.

Other people hold the view that the lesson ought to be adapted to the film. This is not my view. I believe rather that the film should be adapted to the lesson, or at

any rate to the subject treated in it, and that it should be conceived with the definite object of providing a supplementary illustration of the documentary means placed at the student's disposal. Analysis requires a study and a preparation which nature does not offer us. A synthesis presupposes a knowledge of the individual elements which is not *a priori* inevitably imposed. It is not a case of distorting natural phenomena, even if the distortion presents advantages in certain instances (acceleration, slow motion, etc.) The teacher must choose and evaluate. In his hands, the motion picture is an instrument which must be carefully studied, if it is to produce good results.

Again, teachers regret that they are unable to find, or can only rarely find in the films provided for them, this connecting link between the subjects of the lesson and the cinema illustrations. The official bulletins give us evidence of this.

Some one may say: how is it that it has not so far been possible to apply a method which seems so simple?

It is not for lack of trying. It would be most unfair not to give due honour to the first workers in primary cinema teaching. The early installations were due to their efforts, and all that is being done today is a result of their early labours. But the motion picture had progressed since then. The projections of those days, were, we have said, educational projections more than anything else. The true teaching cinema must answer the requirements of a new formula which is beginning to be seen and which in perhaps 15 years will be out of date in turn after having completed its cycle of life.

Cataloguing Teaching Films.

Whatever we may think of the matter, teachers must utilize the films, that are to be found on the market. Often enough, their choice is far from easy.

Bit by bit, as the definition of a teaching film becomes clearer and the difference be-

tween it and an ordinary documentary picture becomes plain, the classifications is use for educational films in general will appear less and less satisfactory. There is not a sufficiently accurate sub-division of films that can be used in post-scholastic projections in respect of pictures which are specially suited to the schools.

Until recently, there was a regular state of anarchy in the production of teaching films, and the film repositories did not help out matters much by any proper system of distribution.

The creation of a central organization has been wanted for a long time, and marks an important stage in the development of the scholastic cinema. If such an organ will prepare an official catalogue of *true* teaching films, it will render a great service to the primary school teachers. The Pedagogic Museum and some regional film repositories have already arrived at this point in their organization, and we cannot but praise their efforts. This pioneer work which has been recently effected should serve as a model for the constructive plan, the details of which have not yet been fixed.

Let us now consider some of the questions involved in this work of organization.

Method to be followed in Film Teaching.

(a) *Place for Projections.* — Since the film is a part of a lesson, and a documentation given the children like printed pictures or lantern slides, objects or manual work, it is necessary and indispensable that the projection be given in the class-room together with the lesson.

The motion picture has as its object the illustration of one or more facts which the teacher cannot explain with his own words or with the aid of the fixed projection. Such illustration should take place at exactly the opportune moment in the lesson, without delays or interruptions which may prove harmful.

If the pupils are obliged to get up and go to another room to see the projection, it is clear that the rhythm of the lesson

will be broken. Distractions will be inevitable, and the teacher will find himself obliged to repeat what he was already explained with serious loss of time.

(b) *How to Project the Film.* — It is not possible to lay down a fixed rule regarding the manner in which a teaching film should be projected. It may happen that the teacher may need to present a fact or a group of facts connected with one another in such a way that one projection will suffice for the purpose of the illustration.

This is the simplest kind of case. It may also occur that recourse must be had to the projector at more than one interval during a lesson. The projection can then be made with comments or other illustrative means according as the teacher decides in his plan of work.

This latter case does not, as a matter of fact, happen often in primary teaching, where the objects shown are very simple and easy to be taught directly and in elementary syntheses.

(c) *Comment.* — It may appear advisable, to comment a film for children while it is being run. This is an error, however, which in practice will not fail to give unsatisfactory results.

The children must give all their attention to the moving images. Their attention will be entirely taken up this visual effort.

For verbal comment to be a useful complement to the showing of a film, it is necessary that it be in perfect accord with the film, in accord, that is, not only with the spirit the of picture but also its time. Thus, every word said must be uttered at just the right moment, and not a second earlier or later. This is not an easy condition to satisfy, and if there is any lack of rhythm between image and word, the pupil will lose contact. Either he will see and not hear, or vice versa.

One the other hand, comment can easily be overdone. The teacher should avoid over-describing things passing across the screen, which explain themselves better than any words of his can do.

In general, it is better, for the teacher to make his comment before the projection rather than afterwards.

This does not mean that comment is always useless during the course of the projection. In the case of the sound film, the case is quite the other way.

(d) *The Sound Film*. — Some movements and certain animated drawings are adequately supplemented with words, but it is necessary that the words be spoken at the right moment, and that they be words chosen to express clearly and rapidly the indispensable indications required. The addition of sound to the film is, in this case, more efficacious than the teacher's words, the will find it very difficult to find the right moment to make his remarks and to choose the right phrase. Again, with the sound film the compilation of image and sound can be studied at length and with care and the definite arrangement and combination of the two duly arrived at.

This does not mean that speech carefully and prudently adapted to the film is not useful and fully justifies the addition of the sound track to the film for primary teaching.

This is all the more the case if the scenes are accompanied by various sounds such as nature sounds, talk, cries of animals, noises of machines, etc... In these cases, the sound track is useful as it helps to give reality and exactitude to the scene being shown, and allows of a complete study.

A teaching sound film ought not, however, to be 100 per cent sound. There is a marked difference between the normal sonorization of the artistic or documentary picture. In the latter, the producer almost always attempts to avoid silent intervals, filling them up with musical comment. No such fears need be entertained for a well planned teaching film. The student is already well prepared for seeing the picture by the teacher's comments, and it is substance rather than appearance that he requires. It is only in very rare cases that the musical accompaniment will teach the pupil anything.

The use of the sound film must be considered a desirable thing. Let us hope that technical progress will enable producers and middle-men to supply schools with good films at reasonable prices.

(e) *Explanatory Notes*. — Teachers have a due appreciation of the explanatory notes attached to pictures. Since it is not always possible for them to examine films beforehand, the notes permit them to prepare their lessons in advance, taking due account of the picture to be shown and in this way possible errors or omissions are avoided.

A proper note should describe all the scenes in the picture with the sub-titles, spoken comment and noises. It can even go so far as to suggest but only to *suggest* the form of the lesson and its place in the curriculum. It can also illustrate the circumstances under which the picture was made, its date and some episodes connected with the shooting of the film. It can also contain a list of fixed slides useful for completing the documentation of the subject.

Utilization of Fixed and Animated Projections. The luminous fixed projection which we have known for a long time now is an excellent way of showing things to students. It is clearly superior to ordinary photographs and reproductions exhibited to the pupils in schools.

The attention of all the children converges at the same moment on the same image, and the master can in this way, without further consideration give all the useful information. He can question and get his class in hand very easily.

The fixed image can be used in many subjects. It cannot, however, attempt to represent things which have their essential existence in motion.

During a geography lesson, on the Alps, for instance, there is no doubt that the showing of a score of suitable well chosen photographs will prove much more efficacious than any comment or literature. It is also equally evident that a short film would

make the lesson still more interesting, showing the movements which fixed projections cannot give, such as the rush of torrents, cascades, avalanches, climbs of mountains, crevices, cattle being led to pasture, ecc.

How many lessons of geography and natural science could be made more natural and effective with the use of slides and films !

It is easy to imagine lessons in the course of which, together with the teacher's explanation, there should be included practical experiments, fixed and animated projections according to the subject being treated.

If we consider the various methods of observations available for the pupils during a lesson, we shall soon see that not all exercise the same attraction. Fixed projections are appreciated, it is true, but the film still more so. It is necessary to take this fact into account and to endeavour to carry on the interest during the lesson, concluding with a motion picture projection.

In general, the lesson will begin with the teacher's explanations and the considerations of the pupils on the projection and the experiments. Even at this point of the lesson, it is advisable to hint at the animated scenes which will be screened at the conclusion. In this way the pupils' curiosity is aroused and the film will be likely to be shown under the best conditions.

The lantern slide and the motion picture are not therefore in any way antagonistic. The motion picture projector should always be used together with the lantern slide. Both have their well defined task in the lesson, a task which suggests the following observations.

Fixed Projections. They are perfectly adapted for showing what can only be properly observed in complete immobility. In this case, the teacher's comments and explanations and the remarks and replies of the pupils can follow one another without difficulty. There is no need to demonstrate

that the use of lantern slides may be developed to any degree.

We should like to add that projections may be made in semi-darkness which permits the pupils to see sketches and allows the master to exercise a proper surveillance.

FILM : (a) The film is not useful for all lessons.

(b) Where its use is considered indispensable, it should be limited to representing movements. It ought not to invade the field of the lantern slide nor the practical experiment, nor direct object lesson, observation, or the close study from life of animals and things. The film should therefore be very short, and its running ought not to exceed ten minutes.

(c) It is useless to stop the projector on a photograph to give explanations. If a special position or attitude has to be dilated on, recourse should be had to the slide. Scenes shown in motion pictures are valuable for the student inasmuch as they represent movements. To stop them is to destroy their value. It means creating a complication and running the risk of damaging the film when it is much easier to use a lantern slide which can illustrate the point better and allow of length explanations.

(d) It is not necessary for a good film to be complete. . . This indeed is one of its characteristics. It fulfills its purpose only if it is used in the lesson in conjunction with other elements of teaching, and it is only in this way that the best results can be obtained.

It results from the foregoing that fixed and animated projections cannot be conceived of separately. It is by their use together in the lesson that the best results are obtained.

Effects of Cinema Teaching. CURRICULA, TIME-TABLES, TEXT-BOOKS.

— The motion picture, considered as a supplementary documentation presented to the pupils, does not seem likely to bring noticeable modifications in scholastic cur-

ricula and the arrangement of the timetables of schools.

The fact that a teaching film is projected in class during the lesson without the latter being in any way interrupted and without the pupils having to move to another room together with the brief duration of the projection clearly show that the present hours for teaching can be respected. The projection of the film will always take up part of the teacher's oral demonstration when the latter is obliged to have recourse to speech to explain as best he can a being, a phenomenon or a movement.

It would be a good thing if text-books took due account of the films intended to illustrate lessons and contained for example, details, movements, comment or reproductions of some typical episode or scene of the motion picture or the lantern slides used in the lesson.

Subjects usefully accompanied with Cinema Aid.

The success of the cinema is intimately connected with movement. But a proper explanation is required here. We are concerned with everything which contains movement in itself: natural, elements, living beings, machines, etc. Moreover, what is immobile can also be represented by a mobile means of observation; as for instance, panoramas, views, landscapes; horizontally, vertically or in relief. These effects, which are much used nowadays, have the advantage of giving an admirable relief to objects. They allow them to be seen and observed from all angles, and reveal a number of different aspects in them.

A mountain landscape, for instance, seen from a vehicle which is moving on a winding road acquires much more life than if seen from a fixed point. My pupils have always derived great profit from the projection of films like "Life in the Alps". "Life in the Pyrenees". These were pictures made during an automobile tour. Modern technique permits of employing

the motion picture in class through animated drawings. By means of these figures, it is possible today to explain with clarity, simplicity and notable rapidity the development of operations which formerly were only explained laboriously with repetitions and the aid of rough impromptu sketches.

Animated drawings find their place in the primary schools as well as for use for adolescents and adults. Let us suppose that we have to explain the working of a lock on a river or canal, or the mechanism of a steam engine. In these cases, the use of animated drawing intermingled with photographs, will prove admirably illustrative. The pupils will no longer be facing *discontinuous* demonstrations, and the theoretical argument becomes plain and identifies itself with the images on the screen. The abstract becomes immediately concrete. We should not be led to forego the use of such a method by the excuse that it is liable to cause a certain intellectual laziness.

We are dealing with primary schools where the average intellectual level is not very high. There are mental processes, simple enough in themselves, which are inaccessible to many young minds that must be either assisted or abandoned, as the case may be. The most promising intelligences should certainly always be helped, but the motion picture allows us to elevate somewhat the possibilities of the majority of the children and to bring them into touch with the conditions of modern life.

From this it will be seen that the subjects which can best be illustrated by the cinema are geography (physical, economic and human) and physical and natural sciences (biology, hygiene, industrial applications).

In the matter of *history*, it is prudent to make some reservations. Historical reconstructions are too often suspect. Even in the best films there are often gross errors. It would appear that the value of the historical film may lie in its capacity for showing the conditions of life in bygone epochs, rural and city life in various periods, the

history of agriculture, industry and transports.

For other subjects the employment of the motion picture seems to be less urgent. I do not see any necessity for its use in arithmetic, for instance, at any rate, in primary schools.

Neither for the teaching of the *French language* or *morality*; there does there seem to be any need to have recourse to the cinema.

The life of the school and the people among whom the scholars grow up will furnish sufficient objects for observation, reflection and practice.

In the matter of hand-writing, drawing and singing, these subjects are too summary and simple in primary schools to require the aid of the motion picture.

Qualities Required in Teaching Projectors for Films and Slides for Schools.

DISTRIBUTION AND QUALITY OF FILMS. —

There are three special difficulties which teachers have to face

when they determine to make use of the film. These are: *material difficulties in projection — Scarcity of films — Lack of standard pedagogic quality in films.*

Material Difficulties. — One of the chief of these difficulties is to obtain the indispensable darkness owing to lack of dark curtains, etc.

Then many machines require rather complicated handling. The greater number of teachers, and especially women teachers, have no practical acquaintance with the cinema projector or with films, and the idea of having to work a machine disturbs and troubles them. Placing the film in the projector is a lengthy and complicated operation for them. They are afraid they will not be able to handle a delicate machine.

It must be admitted that the manufacturers have given little thought to this state of things. In fact, until recently, they seem to have tried to give their machines a difficult and forbidding look. Today, fortunately they are simpler.

Then again, there a number of villages without electric light, which makes it practically impossible to give class-room projections.

Then there is the question of physical safety for the children and teachers. It is not possible to project inflammable films before a class of children. Accidents due to celluloid catching fire, are alas ! numerous. There is no doubt that the solution of the problem lies in the use of incombustible rather than non-inflammable film.

To overcome this difficulty it will be necessary :

(a) to persuade the manufacturers to produce a very simple, strong machine which will be easily portable, not require complicated handling for changing of films, and be cheap and easy to run ;

(b) proper preparation for darkening the class-room by means of dark curtains. There is no need for absolute darkness, which helps to reduce the cost somewhat ;

(c) the installation of a moveable screen which can be rolled up with cords and runners over the blackboard. In this way, the screen will be in front of the pupils and the projector at the rear of the class-room.

(d) The switch-board with button for cutting off the light in the class-room will be installed on the back wall near the projector. Close to this wall can be a bracket or shelf for supporting the projector.

In my opinion, the following is the best arrangement :

A cupboard attached to the rear wall will contain the apparatus, which will be attached to a moveable shelf in the cupboard that can be swung out when the machine is in use. When the projection is finished, the shelf can be returned to the cupboard and the projector kept clean from dust and preserved from the risk of jolts. I have this method in my class and have found it tried very successful.

Scarcity of Scholastic Films. — The use of the cinema in teaching as we understand it includes the projection of films in the class-room and during the lesson to the

pupils. It takes for granted the fact that the films will remain at the teachers' disposal, so that they will not find themselves obliged to alter the order of the lessons or the time-table.

It generally happens that the same curriculum will be given in different schools at the same time. This may mean that the teachers will require the same film at the same moment, which will not be possible to arrange.

It is always tiresome to have to lose precious time to obtain films. The trouble is less serious when we are dealing with post-scholastic projections or educational *soirées*, which are generally much less crowded than ordinary class-rooms. It is possible to arrange the programme with greater calm and wait one's turn for the picture more tranquilly.

The case is different when we are using teaching films for primary education. The film is as much an instrument of the teaching as the textbook or the drawing or the school museum. The school has its library its museum and its laboratory.

It Ought also to Have its Film Repository. — This may seem an Utopian wish today, but it means safety and certainty, freedom to work as experience has shown.

I cannot give any figures, but there are thousands of schools furnished with film archives. It is true that many of them are only for 9 mm. and even 5 mm. films!

I do not intend to discuss here the value and merits of the various reduced size films. It is to a large extent a question of price for the teachers, who are glad to be able to possess a collection of films which they can use at will.

Unfortunately, the school film archive cannot be supplied with normal 35 mm. size films in view of their high cost, even when the schools receive subsidies. These are insufficient to meet the expense.

We must therefore look to the sub-standard film to solve the question of supplying films for the teaching cinema. The reduced size film is less expensive, less cum-

bersome than normal size film, and the advances in technique have made it comparable with the 35 mm. film from the point of view of faithfulness of reproduction of image and sound.

Nevertheless, though the reduced size film was the second in the field, it enjoys a favourable treatment in comparison with normal size film.

Reduced size film, owing to its relatively limited use, cannot enjoy state subventions. For some years many teachers and many children have had to complain of this state of things. They have asked for a settlement, a ruling on the matter of reduced size film.

It is only the teachers who can officially bring about the normalization of sub-standard film. It is a question for the state which certainly needs a careful study but it is time some definite conclusion was arrived at on the matter by now. If primary school teachers are going to use the cinema in their daily teaching, a great number of films will be required. The question of school films has a twofold aspect, with affect funds and the price of films.

Governments ought to furnish funds for the purchase of teaching films. Such credits would enable the cinema archives of the schools to be refurnished with films, each archive having the greatest number of copies possible. The cost of film ought to be reduced, and the trade experts ought to aim at this by trying new support methods, new printing systems and uniforming the reduced size film output.

Quality of Films. — We have here perhaps the most serious of all the obstacles which hinder the use of the cinema in primary schools. This is the pedagogic quality of many scholastic films.

It is generally a case of the defects which are noted during projections. The titles are either too long or too difficult, important scenes are not made long enough or are taken from a point of view which affords little opportunity for observation. Sometimes the scenes are little more than fixed projections which distract the attention

from the true object of the picture. Often there is a lack of order in the succession of the pictures, or there are omissions, lengthy pauses and inaccuracies.

I do not want to appear to be making a regular accusation against anyone, but the fault lies with those film producers who have not left their régisseurs sufficient initiative in the matter. Some firms have sought to improve their production, feeling that there was ground for complaint from the pedagogic point of view. We could refer to a certain picture on the movements of the earth. Here the absence of the professional pedagogue is clearly felt. Such a man knows instinctively what caution must be used in demonstrating with artificial means natural phenomena such as the motions of the stars and planets. This is a fruitful source of errors of interpretation and fact.

On the other hand, there does not exist a series of films arranged according to the regulations of the elementary scholastic curricula, and such films must be made if useful progress on these lines is to be made. I propose to deal later on with important question of the preparation of scholastic pictures.

Usefulness of the Cinema in Primary Teaching. We cannot state that the motion picture constitutes of itself a perfect teaching process. If this were the case, it would suffice to substitute a cinema operator for the teacher, which is obviously absurd.

The film is only an auxiliary for the teacher, and it is necessary to define the task of the aid and to decide under what circumstances it can best be employed.

It is generally recognized today that the film facilitates the acquisition of cognitions, fixes the attention, develops the memory, and excites the imagination.

In this connection, the replies from teachers using the film at the National Educational Cinema Congress of Paris in 1931 are interesting. Here are some of them :

"The film is a precious auxiliary, which makes teaching alive and lends precision to the notions being imparted ».

"The children retain the smallest details of a well made film ".

We will also quote the following characteristic passage of the report sent to the first commission of the Congress by M. J. Artibotte :

"The child possesses an insatiable curiosity and a deep need of emotions. He cannot live on the past, that is on what he knows. He is for ever casting his ardent imagination out towards the universe which surrounds him. The cinema supplies an appropriate nourishment for his needs ".

From all these observations and daily experiences we may conclude that the film is *not inferior* to the other means employed by the teacher for instructing his pupils. It is not the case to affirm that it is *superior*.

The Spirit of Observation. — It is in this way that the spirit of observation is developed through experiments made in the presence of the pupils. Properly organized, such experiments constitute a perfect exercise which is certainly not inferior to the use of the film. The experiment has also the object of developing the faculties of observation and judgment in the child more even than increasing cognitions.

These faculties cannot be exercised on all phenomena, and since it is a question of exercises and practice, it is best to arrange them with the use of real things which the child can touch and feel. In this case, the motion picture has no advantage over experience. It only costs more.

The Attention. — If the film arouses "a lively and continuous attention" it is not the only process which offers this advantage.

The attention of children can be aroused and maintained in hundreds of ways. Is not the interest in the film due in great part to the novelty of the projection in the class-room? If its use becomes general can we not state that in the end a certain slackness will not be observable among the

children? Can we be sure that the use of the motion picture will not bring in time that bugbear of child instruction — indifference?

To tell the truth, owing the mere fact that the motion picture arouses the attention, we cannot place it on a higher plane than other modern pedagogical processes.

Memory. — If the film tends to develop the memory, it does not surpass the value of fixed projections in this respect. The following extract from the report of M. Artibotte goes to prove its.

“At the age of 13, some children, subjected to a written examination on a historical subject taught them *five years before*, with the help of fixed projections, remembered the titles of 17 scenes out of 24 in the correct order of projection”.

It is therefore clear that as regards the development of the intellectual faculties, the motion picture presents the same advantages as other teaching processes (direct observation, experiments, fixed projections). From this point of view, the film is not superior, and has the disadvantage of being expensive).

Acquisition of Cognitions. — The real value of the teaching film lies in the possibility it offers of moving visual representations in time and space, of showing the pupils an exact picture of something the teacher cannot show, and of providing a substitute for oral demonstration which is often insufficient and suggestive of false ideas.

It is indeed impossible to represent with fixed projections moving objects and animals or men at their work.

If we look at the curricula of primary elementary schools — and the curricula must be respected since the certificate of having passed certain examinations is based on a study of such curricula — we shall find obligatory subjects which can only be studied with difficulty in the ordinary way, without the use of the motion picture. Such are descriptions of rare animals, general natural phenomena and everything connected with motion.

The representation of life by means of the cinema and the convincing truthfulness of the film make the motion picture useful even for the child of from 10 to 12 years in the study of the various regions of our country, in acquiring a knowledge of what are called “the provinces”.

According to Paul Valery, “it is not sufficient to study on the map or by direct vision the physical conformation of one’s own country; one must get to know the men in it. For such a study, the film is an incomparable aid. Thanks to it, the students take part for some moments, in the life of the inhabitants. They see, either, the reapers at work in the Beauce, or the mountaineer in his winter refuge; the Breton gathering sea-weed or crustaceans, the various aspects of rural and city life of their own and other peoples”.

This is only an example; the field of action of the film is very extended.

It is this possibility of supplying fresh documents which provides the real *raison d’être* of the motion picture in the department of primary education. *It fills a want in the totality of teaching means*, and the defence of the teaching film ought to be based on this fundamental principle.

Eye and Intellectual Fatigue. — Projections are so short (about ten minutes) that there is no fear of fatigue, either for the eye or the intelligence. Modern apparatus is well illuminated and further progress will be made in this direction with *cold light*. The size of the images projected render them quite distinct for the pupils sitting at the back of the class. It is generally a good thing to reserve the seats nearest to the screen for the short-sighted children. The teacher can learn about the eyesight of his pupils at an early stage in their instruction. He can hold a trial projection, and seat his pupils according to the result.

Teachers and the Cinema. TECHNICAL AND PEDAGOGIC PREPARATION. —

— Teachers in normal schools ought to become acquainted with the use of the teach-

ing motion picture. The student-teachers ought to learn how to use the projecting machine, both silent and sound, how to look after it, take it to pieces, remount it, oil it, etc.

Teachers ought to learn how to handle film without damaging it, to repair it, clean it with alcohol, and make joins in it. All this knowledge can be obtained in a few lessons from a technician.

The knowledge of the precautions to be taken for reduced size film and sub-standard projectors will have the effect of diminishing the damage to film and apparatus. The film will have a longer life. A capacity to handle film would allow teachers a greater liberty of spirit in their pedagogic work. It is useful, again, to warn teachers against any exaggerated use of the motion picture in class-rooms. A type or model lesson in class-room with a projector will show them the best method to follow in a process which is really quite simple.

COLLABORATION IN THE PRODUCTION OF DIDACTIC FILMS. — The production of a teaching film may be divided into two stages: preparation and realization.

Preparation. — It is not enough to draw our information from official curricula to form a rationally compiled list of films.

Even in the restricted field of primary instruction, it is advisable to plan for three categories of films, three different categories, corresponding to the three principal grades of primary studies, elementary courses, middle courses and superior courses.

The film is like the book. The text-books used by children of from seven to eight years are different from those of a few years older. Therefore we do not want any "omnibus" kind of film, good for all, which the same pupils would see year after year, and which by trying to suit everybody would be useful for no one.

On the contrary, one must not be afraid of creating sub-divisions. They correspond to the necessities set forth in the official curricula.

This first specialization of films allows

us to study them better, to render them more adapted to each individual subject, and to fit them for specially defined functions. Every lesson must in general be accompanied by film illustration, even if this be of a brief nature. It may happen sometimes that the film will prove a useless form of comment lantern slides being sufficient to supply the documentation required.

In order to make a wise choice of a teaching film, it is first of all necessary to define the exact task which the picture has in the lesson to be given. This presupposes an exhaustive study of the lesson and a comparative examination of the utility of slides and motion pictures for illustrating it.

All these things must be taken into consideration in preparing the scenes of a picture. Each scene must be described with the greatest precision, pictorial sense, knowledge of shooting angles, running time, etc.

At all times, the author of the film, the real producer, must refer to the technique of his profession of pedagogue just as the professional producer refers to his. No detail is superfluous in this connection.

This study, this production is a lengthy and difficult matter, and this particularly because the finished picture must have a certain unity and a certain rhythm. The author of the film can only be a professional teacher, but he must also have a proper practical and theoretical knowledge of cinema technique.

Making the Film. — It is at this point that the cinematographic work strictly speaking begins, and this is the most difficult part of the task.

However precise and detailed the author's indications are, the producer can only make a visual adaptation of them. To adapt is always more or less to betray the sense of the original, in the cinema as in literature. The author's expressions and intentions cannot be strictly respected, and the fact that the producer and adapter have great talent does not alter the fact.

Book and film are not without their

analogies. Each is a strictly personal work, an expression of thought, a mirror of the author's observations. There are many ways of painting a picture. If a landscape can be a state of mind for a writer or an observer, so can it for a film-maker. The so called *cinematographic truth* easily accepts the technical processes which place at his disposal different aspects which the film producer uses in the same way as a writer models his phrases and turns of speech.

At the same time, if the writer has the privilege of using simple instruments — pen, paper and typewriter — the film-maker is the slave of complicated apparatus which oblige him to have recourse to a number of collaborators. His work becomes therefore more delicate. He may be tempted to count too much on the work of his unavoidable collaborators, and this he must not do if he wants to obtain the best results.

He must interpret the subject and theme himself, without unnecessary interpolations or acceptance of mediocre make-shifts.

The charge has often been made against the film that it is a flight of too rapid images. The answer may be that the accused film was not specially made for the class-room.

In films shown to the public it is necessary to avoid over long scenes, repetitions. The producers are afraid to interrupt the rhythm of the picture and diminish its attraction.

But when it comes to teaching, there need be no fear of arresting the rhythm for a moment, to ponder, examine and go over a point again. These delays and lengthenings are inevitable. It is essential that children have the time to see with ease and comfort. If the action seems too rapid, the best thing is to repeat the film once or twice. One must also be prepared to sacrifice occasionally a fine scene when the case requires it in order to insert a sequence taken from a point of view more favourable for observation purposes.

Certainly, it is desirable to show the child-

ren beautiful pictures whenever possible. It would be foolish, however to sacrifice everything to this laudable concept.

When making a scholastic picture, it is a good thing to repeat frequently: "What instruction will be pupils be able to derive from this scene?" The process of making the film can be regulated in accordance with one's own answer.

On the other hand, it is necessary to avoid dispersing the pupils' attention. Let us suppose you want to show the pupils the working of say a piston rod in a steam engine. I have taken a simple case. The children will see a whole lot of things on the screen such as the exhaust of the steam, the railwaymen, the track, the engine, etc. and their attention will not be particularly directed to one object unless it is shown in a special close-up.

In any case, the use of close-ups should be thoroughly understood. Children, indeed, generally prefer close-ups to long shots. They are naturally interested in details as can be seen from a study of their drawings. It is well to fall in with the influence of nature in young intelligences.

This and similar considerations should always be present in the mind of a film producer during the making of a picture, and it is impossible for a "cineast" to go too thoroughly into such details of his task. In making teaching films, he must forget certain habits and mannerisms which he has learnt in the production of theatrical or entertainment films. He will find himself obliged to "shoot" over again scenes that are didactically imperfect or badly lit. He will find himself under the necessity of cutting scenes which would do admirably for the general public but would be useless or out of place for scholastic proposes.

When the "shooting" of the picture is completed, the next step is to mount the film. This is a matter full of difficulties and traps for one who is not a teacher, both as regards the order and duration of the scenes and the preparation of the sub-titles.

Care must be taken in the matter of sub-

titles. Too often they are used too plentifully. They are certainly necessary, but their number should be limited and they should be brief. If it is easy to compile a long sub-title, it is certainly much more difficult to condense in a short simple phrase the idea it is sought to express in words. A good film can be ruined by badly made sub-titles, and the fact cannot be insisted on overmuch.

The necessity for so many precautions clearly shows that only a good teacher can bring a good teaching film to a satisfactory conclusion. The true author is the producer, and it is he who gives life to the film. He prepares the scenes and effects, directs the camera work, orders the lighting, the movements and the dialogue, gives instructions for the development of the film and supervises the printing. He and he alone takes charge of the mounting which gives the style to the picture.

These conditions for the making of a picture are the ordinary normal ones in use in spectacular cinematography, but in the case of a teaching film, they are at present

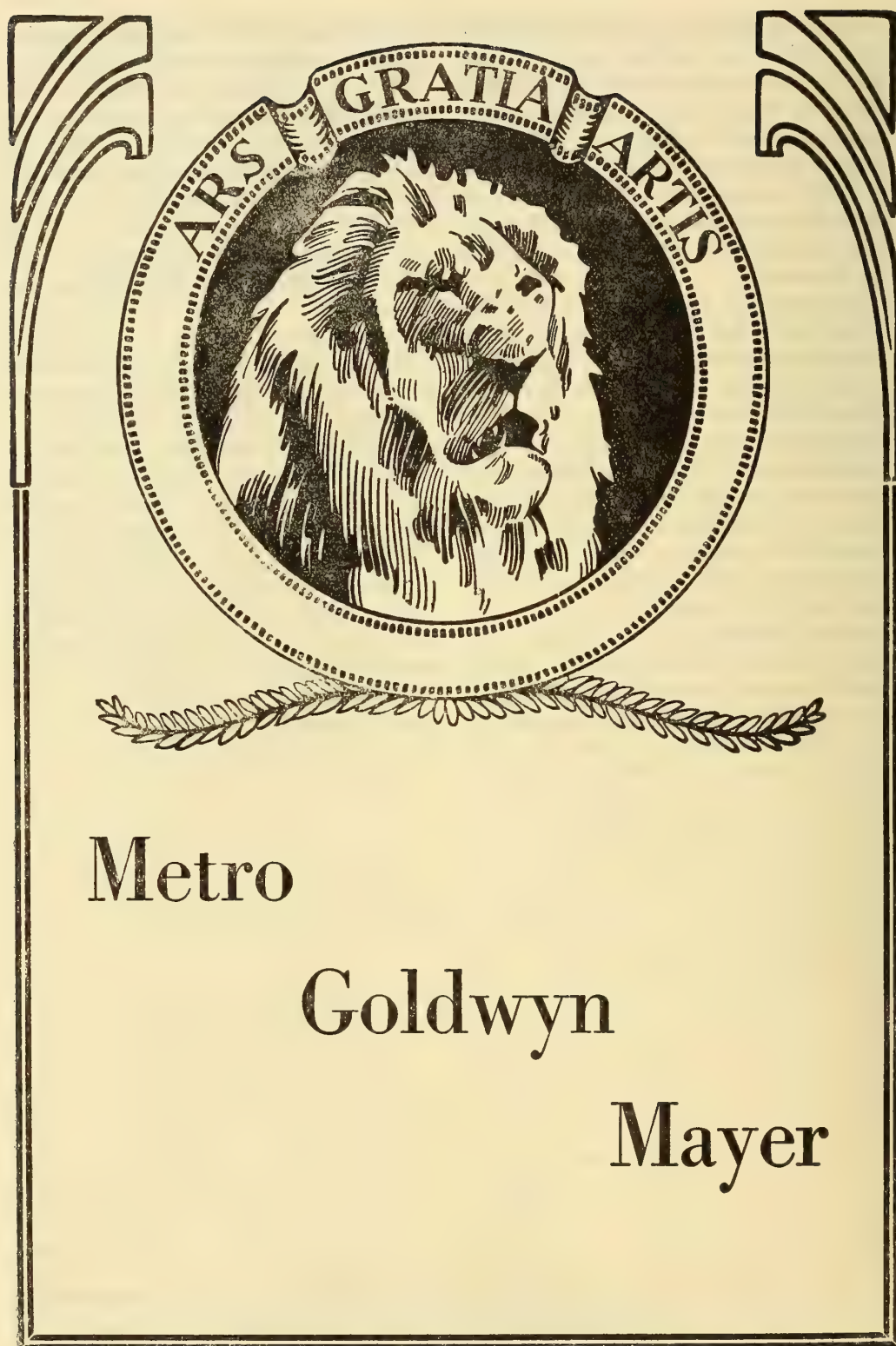
only a dream. This is perhaps why the scholastic cinema proceeds so slowly.

The collaboration of teachers in the visual composition of a film to be used in lessons is most important. Every film should be made under a single individual direction, that is, under the direction of a professional teacher.

This man must have equal authority and equal responsibility with the régisseur, or producer.

This implies on his part a profound knowledge of cinema technique, and almost professional ability in the details of "shooting" a picture.

It means too considerable knowledge of the art of mounting and a motion picture sense. These are things only acquired with long practice. The teacher producer will have to go through an apprenticeship in the course of which more than one film will be ruined. But such apprenticeship will in future teach him how to avoid costly mistakes, and put him in a position to decide quickly and surely at the critical moment of shooting a picture.



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MOTION PICTURES IN EDUCATION IN THE UNITED STATES

BY

Cline M. Koon,

SENIOR SPECIALIST IN RADIO AND VISUAL EDUCATION.

FOREWORD

"He was a wise man who said, 'Let who will make my country's laws, so long as I may write her songs,' and I do not think song ever had a greater influence upon the lives and characters of the people of any country than the picture is destined to have".

Right Hon. LORD ASQUITH.

THE motion picture has become a powerful force in national life and is exerting a lasting influence in shaping attitudes and ideals. It has a tremendous scope, and so many problems are involved in its utilization that it seems profoundly important that another international congress be called by the League of Nations, through the International Institute of Educational Cinematography, to consider its potentialities in the world today. If the following report contributes even in a small way to the success of the congress, it will amply repay the time and effort involved in its preparation.

The possibilities of the motion picture in international understanding are limited only by the ingenuity of man. It speaks to the learned and the unlearned. It is a popular entertainer of both the old and the young in all parts of the Orient and the Occident. It carries instruction about other lands and other peoples to millions — instruction that could not be given in any other way. Audiences of millions of people of diverse nationalities are but a cross-current of humanity that is entertained and informed by this magical master teacher — a teacher so young, yet so powerful. Its universal emotional appeal and common language, its geographical spread and commercial interests, its financial power and propaganda possibilities make it one of the strongest and subtlest integrating influences in human history.

The whole field of motion pictures is kaleidoscopic. What one thinks today may be a reality tomorrow and obsolete the day after. But these are kaleidoscopic times. Perhaps that is the reason the film appeals so strongly to educators, sociologists, motion picture producers, manufacturers, exhibitors, and the public-at-large. In the field of formal education our rapidly changing social order has greatly complicated the educational process. The learner must master and coordinate a bewildering number of facts. He must explore almost unbounded realms. The teacher needs the aid of science in this age, which science has done so much to make complex. Potentially, the motion picture is one of the chief contributions of science to education — if not the chief — but it is not being fully utilized.

As we approach the dawn of a new day in industrial life, we realize the worker will have more time for recreation and self-improvement. How will this time be spent? Perhaps in the near future we shall see adult education, with its different ramifications recognized in a great variety of ways that are not being considered at the present time. If so, the fascinating qualities of the film will make it an invaluable aid to the new education in the days which lie immediately before us.

Many agencies in the United States are interested in motion pictures in education; but, as is reflected in this report, there has been a great deal of conflict and duplication of effort resulting from divergent view-points in the various groups. The lack of uniform standards of equipment and films has also seriously retarded the application of motion pictures in education, even as the lack of mastery of the art of teaching with motion pictures has. A number of signs indicate that there will be more cooperative endeavor in the near future, not the last of which is the fact that representatives of the motion picture industry, various national voluntary organizations, and the Federal Government have cooperated whole-heartedly in the preparation of this report.

As United States Commissioner of Education, I wish to express my grateful appreciation for the generous assistance of many persons whose contributions made possible the preparation of this report. To those who attended our preliminary conference on September 25, 1933, we are deeply indebted for their voluntary assistance. Representatives of various universities, city school systems, motion picture producers and distributors, equipment manufacturers, voluntary organizations, and governmental agencies contributed the exhibits. We acknowledge our indebtedness to them, as well as to the hundred or more leaders in the field who read, criticized and supplemented the preliminary draft of this report. To name all to whom we are indebted would be impossible.

Parts of the preliminary draft of the report were compiled by: Dr. C. F. Hoban, Pennsylvania State Department of Public Instruction; Dr. V. C. Arnsperger, Erpi Picture Consultants; Mrs. Robbins Gilman, National Congress of Parents and Teachers; Mr. William Reid, International Union of American Republics. Valuable contributions to the completed draft of the report were made by: former Governor Carl E. Milliken, Motion Picture Producers and Distributors of America; Dr. Edgar Dale, The Pyne Fund; Dr. Worth Tippy, Federal Council of Churches of Christ in America; Mr. William Kruse, Bell and Howell Company; Miss Marian Telford, National Safety Council; Mr. Nelson L. Greene, Editor, *The Educational Screen*; Dr. W. M. Gregory, Director of the Educational Museum, Cleveland Public Schools; Dr. Geo. P. Day and Mr. Arthur H. Brook, Yale University Press; Mr. W. H. Maddock, Eastman Teaching Films; Canon William Sheafe Chase, Federal Motion Picture Council; Mr. Roy W. Winton, Amateur Cinema League; Dr. John A. Hollinger, Director of the Department of Visualization of the Pittsburgh Public Schools; Mr. Frederic M. Delano, Motion Picture Research Council, and others.

We hope that this report will be of sufficient value to justify the effort of those who have made its preparation possible. If so, we are confident it will mark the beginning of closer cooperation among various agencies both in the United States and abroad in the utilization of motion pictures in education.

GEORGE F. ZOOK,
United States Commissioner of Education.

INTRODUCTION

a) The Purpose of the Report. This report on the instructional use and indirect educational influence of motion pictures in the United States has been prepared in response to a request from Dr. Luciano de Feo, Director of the International Educational Cinematographic Institute, that the United States Office of Education cooperate in the preparations for the recent International Congress of Educational and Instructional Cinematography which was held in Rome during the first part of April, 1934. In addition to its use abroad, the report is intended to serve various governmental, educational, voluntary and motion picture agencies in the United States which are seeking a concise compilation of factual information and sources of information about motion pictures in relation to education.

No attempt has been made to present all possible phases of the subject. The study has been confined to a consideration of the principal questions raised by Doctor de Feo in his original request for the report. The study emphasizes factual data collected from many sources, and, even though the emphasis was not placed on opinions, various and even conflicting viewpoints are reflected in the report. Since it appeared that an attempt to unify the data and reconcile all divergent elements would reduce the value of the report, which is intended to give an airplane view of the situation, it became a difficult undertaking to evaluate the data from various sources. Without doubt the report has errors in this respect, but years of research and experimentation would be needed to make an exhaustive study of the subject. It is hoped that the present study will be of some service to interested groups and, incidentally, encourage centers throughout the United States and foreign countries as well to keep the Office of Education informed regarding future motion picture activities.

b) Sources and Procedure. A preliminary conference was held at the Federal Office of Education on September 25, 1933, at which thirty-five representatives of governmental, voluntary and motion picture agencies discussed the major topics of this report. Later, certain members of the conference were invited to prepare preliminary statements covering different units of the report. These statements were compiled into a preliminary draft which was submitted to the members of the conference and representatives of sixty-five other agencies for their criticisms and supplementation. Members of ten or twelve of the most interested agencies were interviewed personally in regard to the report.

The suggested additions and revisions were carefully studied, and the final copy of the report prepared from them and from additional data gathered in connection with the report.

The study had not progressed far before it became apparent that much of the source material referred to could be used as exhibits to illustrate various parts of the report when it was submitted to Rome. The list of these exhibits also becomes a guide from which people who are interested in various phases of the subject can secure additional information.

c) The Plan of the Report. Following this introduction the main body of the report is divided into nine units as follows: (1) The educational influence of motion pictures; (2) The motion picture in the service of health and social hygiene; (3) The motion picture in governmental service and patriotism; (4) The use of motion pictures in vocational education; (5) The motion picture in international understanding; (6) Motion picture legislation; (7) The technique of making and displaying motion pictures; (8) The systematic introduction of motion pictures in teaching; and (9) Educational problems

of a general nature resulting from the introduction of motion pictures in teaching.

1. — THE EDUCATIONAL INFLUENCE OF MOTION PICTURES

A clear line of distinction should be drawn between the theatrical motion picture and the non-theatrical picture. The most superficial observer will recognize that the former exists in the United States primarily for the financial profit of the owners and the amusement of the public. From a humble beginning early in the present century the theatrical motion picture industry has grown until it is now a billion dollar concern. The Motion Picture Producers and Distributors of America estimate that there were 22,731 motion picture houses in this country on January 31, 1931. The Film Daily Yearbook of Motion Pictures (1933) reports a total of 18,533 motion picture theatres in the United States on January 1, 1933. Only 12,480 were in operation. Weekly estimates are difficult to make, but it is believed that in 1932, 70,000,000 persons were attending motion picture performances weekly in the United States. In 1930, 500 feature films with about 200 prints each were made (1) p. 208).

Although the theatrical motion picture is primarily an agency for amusement, it is no less important as an influence in shaping attitudes and social values. By combining sight and sound, it commands the concentrated attention of those it reaches as does no other agency. The influence of motion pictures is not confined to urban centers. Cinema theatres have invaded villages, and with improved means of travel are now easily accessible to rural people and play a large role in their recreation. (2)

Educators have a responsibility to guide, in so far as they can, and work with the motion picture industry in such a way that false conceptions and improper situations may not be accepted through countless reiterations to the entire cross section of the population (1 p. 790). The attendance of large numbers of children at motion pictures has been under scrutiny by various groups. Children are apparently receiving a considerable amount of their education thereby, particularly in human relations, and more specifically in courtship and marriage (1 p. 390). Reviews, State censorship, local selection and the teaching of motion picture appreciation are the principal means being employed at the present time to stimulate the production and use of educationally desirable theatrical motion pictures.

a) **Raising the Standards of Taste for Entertainment Motion Pictures.**

A number of organized groups are working to raise the standards of taste for entertainment motion pictures. Recommendations based upon previews, research studies, and the teaching of motion pictures appreciation in secondary schools are the most common approaches to the solution of this problem. They will be discussed in order.

As a means of assisting community leadership to find out in advance which specific forthcoming pictures would most merit their approval and support, the Motion Picture Producers and Distributors of America instituted a system whereby motion pictures are made available to volunteer committees of responsible public groups for preview purposes.

The following organizations have volunteer local committees in Hollywood and or New York to preview photoplays and make their selections on the basis of the moral,

(1) *President's Research Committee on Social Trends, Recent social trends in the United States*, McGraw-Hill Book Co., New York, 1933, 2 vols, 1568 p.

(2) *President's Research Committee on Social Trends, Recent social trends in the United States*, McGraw-Hill Book Co., New York, 1933, 2 vols., 1568 p;

educational, dramatic and artistic values of films and on their suitability for the entertainment needs of the family :

- America Library Association ;
- Boy Scouts of America ;
- California Congress of Parents and Teachers ;
- Daughters of the American Revolution ;
- Federated Church Brotherhoods of California (Stage and Screen Committee) ;
- General Federation of Women's Clubs ;
- International Federation of Catholic Alumnae ;
- Los Angeles Branch, American Association of University Women ;
- National Council of Jewish Women ;
- National Society of New England Women ;
- Young Men's Christian Association.

The committees report to the respective organization headquarters, and after the reports have been approved they are made public through the publicity channels of the organizations and the monthly publications.

The organizations themselves, through their own contacts, and through their own local groups have disseminated the preview information throughout the country. The national Board of Review of Motion Pictures, also, reports on films and encourages the formation of local better-films-committees. There are several thousand local committees at work at present.

Competent opinion regarding the relative merits of films may have far-reaching effects upon public selections, but the fundamental place to begin a consideration of the ethical and social values of a motion picture is at the point of production. One step in this direction has been taken by the industry through the Production Code which was adopted in April, 1930. The corollary in the administration of this code is represented by the Studio Relations Committee of the Motion Picture Producers and Distributors of America. In addition to a director, the committee consists of a motion picture director of

each of the companies affiliated with the Motion Picture Producers and Distributors of America. All scripts must be approved by this committee before production begins and the finished picture must likewise be approved before being released. However in the three years this self-imposed code has been in operation, the criticism of the objectionable moral tone of pictures has not materially abated.

The most extensive investigation of the influence of motion pictures on children and youth that has been made in the United States is the Payne Fund studies, which extended over a period of five years (1928-1933). Eminent psychologists, sociologists, and research workers, faculty members of several leading universities made independent, though closely related, contributions to the total findings of these studies. They constituted the membership of the Payne Fund Committee on Educational Research in Motion Pictures under the Chairmanship of Dr. W. W. Charters.

The investigations included studies to find out what children learn from motion pictures and the effects on (a) attitudes, (b) emotions, and (c) conduct. The report which has recently been published in nine volumes shows the following :

1) On an average, each child in areas where motion pictures are physically available goes to the movies once a week.

2) Three out of four of the pictures that are shown are related to sex, crime or romantic love.

3) The child retains 2/3 as much as the adult from his attendance at the movies.

4) Motion pictures change children's attitudes and these changes have a lasting influence.

5) One measurement of the emotional effects of pictures was done in terms of the influence of movie attendance on children's sleep. Other measurements of the emotional reactions of children to motion pictures were also extensively used.

In summing up the findings of the report, Dr. W. W. Charters recently stated, " We

have in motion pictures a very powerful educational influence both for good and bad. For children commercial motion pictures offer an unbalanced diet".

For five years the National Council of Teachers of English has been studying motion pictures. Its members have visited preview committees and have read the appraisals of films in *Selected Motion Pictures*. They have considered the feasibility of utilizing the classics of the screen as a basis for the teaching of English.

During the past two years they have been engaged in an interesting experimental project to determine whether high school students of English profit more from the screen than from like material otherwise acquired. The project is being conducted under the direction of Dr. William Lewin, Chairman of the Photoplay Appreciation Committee. Last year 1,851 pupils in 19 States, 31 schools and 57 theatres in 28 different cities participated.

The procedure followed in this project has been for the Photoplay Committee to choose a few of the best current theatrical motion pictures and prepare study guides to assist teachers of high school English classes to teach their students how to appreciate these pictures. Representative English teachers in various parts of the country are selected to use this prepared material and take their students to see the photoplays. Local theatrical managers usually cooperate by displaying the pictures at the time desired by the teacher and by admitting the students free, or by admitting the individual students free at any time they care to see the picture.

The student fills out a questionnaire after he has seen the picture, with a view to participation in a class discussion of the screen drama. He is expected to have some opinions about the picture as to its type, character portrayals, story structure, the logic of its ending, its social value, and so on.

The committee's researches have shown that high school boys and girls make great strides in approaching the standards of

appreciation as set up by the teacher and that English teachers are ready and willing to use motion picture appreciation material.

During the present school year the Photoplay Committee is preparing study guides for a select list of pictures, including "Emperor Jones", "Alice in Wonderland", and "Little Women". This material has been supplied to about 1700 English teachers who will use it in their eleventh grade English classes.

Doctor Lewin is also very much interested in high school movie clubs, and has successfully combined his photoplay appreciation work with the activities of his club in Newark N. J..

The most extensive experimental project in teaching motion picture appreciation to high school students is being conducted in five States at the present time by Dr. Edgar Dale of the Payne Fund who is working under the direction of the National Committee on Teaching Motion Picture Appreciation. The United States Commissioner of Education is chairman of this committee which is made up of representatives of the National Council of Y. M. C. A., National Board of Y. W. C. A., National Congress of Parents and Teachers, National Education Association, International Council of Religious Education, Jewish Welfare Board, The Payne Fund, National Catholic Welfare Conference, National Council of Teachers of English, the five State departments of education, and the Federal Office of Education.

This project, which was launched as a preliminary experiment in Ohio during the early part of 1933 is one of the endeavors resulting from The Payne Fund studies of the influence of motion pictures on children and youth. Its purpose primarily is to raise the standards of tastes of high school students and adult groups in the selection of the photoplays which they attend.

Doctor Dale's book, "How to Appreciate Motion Pictures", is being used as text in the high school classes and for the voluntary adult groups. Radio broadcasts

on motion picture appreciation may supplement the instruction. The procedure is flexible at the present time. It is anticipated, however, that after further experimentation during the next two years best practices in teaching photoplay appreciation will gradually be established and motion picture appreciation will be taught regularly in the high schools throughout the United States. Two States already have included units in motion picture appreciation in their high school curricula.

b) Non-theatrical Motion Pictures. Remarkable engineering advances have been made in the production and the projection of films. The technique of production to create interest and secure desired emotional effects has been reduced to a fine art in the industry, but has only been partially utilized in the non-theatrical field. For example, sound motion pictures are little used in education at this time. With its present technical excellence, the motion picture is a tremendously powerful tool which is not being fully utilized in education. This applies to silent as well as to sound pictures.

According to the report of the President's Research Committee on Social Trends:

Non-theatrical uses of the motion picture are varied. It is estimated by the Department of Commerce that over 190,000 non-theatrical projectors are in use, including home sets. In 517 primary and secondary schools within one year there were 44,186 showings of pictures, of which 73 per cent were in connection with curricular activity. Churches have used motion pictures extensively as a means of attracting and holding younger members. It is also used in connection with sales campaigns, advertising and demonstrations of products, and an extensive market has developed for non-entertainment films of this character. Films also have value in showing scientific techniques. Non-theatrical uses of motion pictures promise to develop

far more extensively in the future ((1), p. 210-211).

Thirty-two of our forty-eight States have film libraries of varying qualities under the supervision of educational directors. Most of these are in the extension divisions of the State universities, a few are with the State departments of education, private universities, art institutes and museums. There are approximately thirty registered State visual educational associations working to extend the use of visual aids to education throughout their communities. This is being accomplished by experimentation, demonstration and educational propaganda.

In his visual instruction survey, Dr. F. Dean McClusky found that six city visual instruction departments spent £ 830,000 in 1931. Twenty-three State bureaus of visual instruction, located for the most part in State universities, spent £ 276,000 in 1931. The following are a few of the other interesting facts recorded in this study:

1) Thirty-four cities owned 2,579 projectors.

2) There were 350,000 non-theatrical projectors in the United States. About 6/7 of the total number were 16 mm. projectors.

3) The estimated value of non theatrical projectors was £ 70,000.000.

4) Sixty cents per pupil per year for visual instruction would provide an annual market of £ 12,310,000 ((2) p. 63-64).

More than thirty-five reliable commercial companies produce non-theatrical films, and nearly two hundred companies distribute them. The non-theatrical films include instructional, cultural, technical, industrial, religious, general information and entertainment subjects. The 16 mm.

(1) *President's Research Committee on Social Trends, Recent social trends in the United States.* McGraw-Hill Book Co., New York, 1933, 2 vols., 1568 p.

(2) F. DEAN MCCLUSKY. *Visual instruction: its value and its needs.* New York City, Mancall publishing corporation, 7 West 44th Street, 1932, 125 p.

films are all on safety stock, and the 35 mm. films that are not already made on safety stock should be, as it is illegal to run nitrate films in schools without theatrical booths. Some non-theatrical films have sound and talking accompaniment, but most are silent. They are seldom distributed through theatrical film circuits, but are generally available for rent or sale to educational, religious, civic, and welfare agencies. Several universities, city school systems, museums, departments of the Government, in addition to commercial companies distribute non-theatrical films. Perhaps the most inclusive and extensively used catalogue of non-theatrical films is "1000 and One — a Bluebook of Non-Theatrical Films", which is issued annually by *The Educational Screen*.

Among non-theatrical films there must be distinguished the special category of teaching films — motion pictures made expressly for classroom, or at least for school use. Examples of this type are found in the films distributed by Eastman, Erpi Picture Consultants, Bell & Howell, and others. These are usually quite short, ranging from 100 to 400 feet of 16 mm. film, and deal with some specific subject in the curriculum.

Such films enjoy a wide acceptance among visual instructionists and constitute the backbone of the school films library. Some educators consider it a serious shortcoming that these films are not always closely coordinated with the particular textbook used, or at least with the particular methods of instruction applied, or at least with the locale where they are sought to be employed. Other visual instructionists do not allow such criticisms to stand in the way of the use of otherwise acceptable films — editorial changes are readily made in 16 mm. motion picture films, and supplementary material can be prepared locally by instructors who consider this necessary. This is just a matter of learning to apply a movie camera and film splicer to school work.

Some schools go to the expense of mak-

ing their own teaching films as a matter of policy. The Milwaukee Vocational School, for example, has produced well over one hundred and fifty educational films in its own visual instruction department, each of them approximately 600 feet (16 mm.) in length. Subjects include biology, general science, health, and civics — with special emphasis on local conditions.

Another distinctive category of non-theatrical films worthy of special mention is the educational film sponsored by some commercial concern, whose product may or may not be dealt with in the picture offered free for school use. Most of the films offered by two of the largest sources of free non-theatrical film, the United States Bureau of Mines, and the Motion Picture Bureau of the National Council of Y. M. C. A. are of this type. Where the subject matter is ably and objectively covered, without any hawking of trademarks or other advertising, such films may be used to advantage. Where the film is transcendently of the sales promotion type it should be rejected.

In certain State teachers' organizations resolutions have been adopted denouncing classroom use of commercially sponsored motion pictures. On the other hand, in other States the State university visual instruction center has encouraged and even engaged in the production of industrial films sponsored by local industries to show local industrial products and manufacturing processes. It would seem that sponsored films should be judged on their individual merits, with lines drawn tight against objectionable material.

In addition to the present and contemplated use of educational films in elementary and secondary education, it is becoming more and more apparent each day that they should be used extensively in the field of adult education with its different ramifications. It appears probable that the near future will see adult education recognized in a great variety of ways not thought of at the present time.

Adult education, as distinguished from formal collegiate education, is not systematically organized in the United States. In consequence, the Y. M. C. A., Y. W. C. A., churches and other voluntary societies, have undertaken various phases of adult education and have made some use of motion pictures. The use of motion pictures in religious education may be taken as an example.

c) Motion Pictures in Religious Education.

The churches of the United States are becoming aware of the value of visual aids to religious education, but as yet the use of motion pictures is not at all commensurate with their known value. Possibly religion is not much behind education in this respect. There is need of painstaking research into the technical uses of this form of visual aid for religion, comparable to the recent Harvard study directed by the educational and scientific faculties, and the experimentation in photoplay appreciation in American highschools under the National Council of Teachers of English. One such study is now in progress in the Graduate School of a leading university, but no report can be made upon it at the present time.

Meanwhile considerable experimentation in the production and use of motion pictures for religious purposes is under way, but badly handicapped by lack of funds. Several mission boards and boards of religious education are producing pictures, mainly 16 mm. films, and they are being widely used, although as yet, it must be granted, without a sure technique. The Presbyterian Board of Christian Education, the Presbyterian and Methodist Board of national and foreign missions, the Missionary Education Movement, the Baptist Board of Missionary Cooperation, and the Young Men's Christian Association have been the most aggressive.

The Religious Motion Picture Foundation, created and financed by the Harmon Foundation, is producing pictures experi-

mentally and studying their distribution and uses by churches for missionary education, religious education, and Sunday night showings. They have a list of 1,350 interested churches. In addition to this Foundation, a half dozen producers are at work in the field of religious education. One great difficulty is the lack of a definite sufficiently large circuit of churches using pictures to offer an adequate market and to make financing possible.

The churches are showing great interest in the spiritual, leisure time, and social values of the commercial cinema. The Federal Council of the Churches of Christ in America, federating the important Protestant communions of the United States and Canada, has a Committee on Motion Pictures which is beginning to organize better church films councils throughout the country, designed in the main to educate public taste. It is assumed that the churches will participate in general councils representing the character building agencies of the community. The Committee contemplates a national Protestant photoplay reviewing service and a service bureau to assist and guide local churches in the use of pictures. The International Federation of Catholic Alumnae has conducted a reviewing service for twelve years and also broadcasts from twenty-six radio stations. They have a circuit of 1,000 schools and parish halls using pictures.

In general, it should be said that the churches are very restive under the present moral quality of American films and are increasingly exerting their influence for cleaner and better films.

In comparison with the theatrical motion picture, the non-theatrical picture in the past usually lacked technical excellence, is used comparatively little, and with varying regularity. The principal reasons for this difference seem to have been first, the policy of the Federal Government to leave to private industry and voluntary endeavor many activities that the typical European government would assume and, second,

the educational system of the country which is not centralized in the Federal Government, but, in main, is left to each of the forty-eight States. In turn, many of the States grant almost complete autonomy to cities and in some instances to other local school systems within the State. It is obvious that these practices greatly restrict centralized national activity in the non-theatrical film field and complicate this report because of the diversified and sometimes conflicting activities by certain organizations in various parts of the country.

Commendable efforts are being made in many places to overcome these difficulties, but there is great need for a strong national films institute in the United States (1) to assemble, edit, classify, publicize, and catalogue non-theatrical film material in existence, and to set up a convenient and economical distribution system; and (2) to stimulate the production and effective utilization of educational films. Notable progress is being made already, especially in cataloguing non-theatrical films, but centralization of activity and coordination of effort is lacking.

d) Amateur Cine- In addition to the educational influence of theatrical motion pictures and the direct instructional value of non-theatrical films, a third approach should be made to the place of motion pictures in education, the educational value of amateur cinematography. There are many local clubs of amateur motion picture makers in various cities and metropolitan areas, and thousands of amateur photographers take, develop, and display motion pictures as a recreational activity or hobby. There is an international organization of home motion picture makers with headquarters in New York City. This organization, called the Amateur Cinema League, Inc., is not affiliated with the various national or local amateur clubs, but has individual members all over the world. The Amateur Cinema League publishes the *Movie Makers* and various bulletins, offers a technical consulting service,

and maintains a film exchange for its members. The educational value of amateur cinematography as a means of individual self-expression is generally recognized. It also has many useful applications. During the decade in which personal motion picture making has developed, there has been noted a definite and important increase in the practical and non-recreational employment of this medium for such purposes as surgical film recording, scientific filming and the preparation of films for industrial process instruction. Personally made films are also used by business men as sales aids.

In conclusion, the motion picture has been a most successful means for public recreation, but it is preeminently a device for public education, and as such belongs also to the educator. The entire educational system in the United States is apparently on the verge of reorganization and advancement. The development of visual aids to education and especially the motion picture mechanism is a vital causal factor back of new educational processes which are both evolutionary and revolutionary. Visual presentation of subject material has long been considered important, but with motion and sound added, educators have a method and a technique unsurpassed by any previous invention or discovery in human history.

The motion picture is an educational medium. It interests, it influences and it informs. It reveals new facts for action. It creates new thoughts for the mind and provides new worlds in which to dwell. It gives vicarious experience. It informs more rapidly than other media, gives greater detail, and produces retention and maturing effects. Manners, customs and attitudes are learned from motion pictures. Social sanctions, religious precepts and legal standards are basic subjects for motion pictures, and when correctly presented become permanent sources of information. These facts have been established and evaluated by experimentation and demonstration.

A former U. S. Commissioner of Educa-

tion declared, "For the purpose of making and influencing public opinion and thought, the motion picture in its present stage is the most powerful influence now known, and as its use increases and its field of operations develops, its power to influence the public will increase".

Dr. Wesley C. Mitchell, speaking for the Motion Picture Research Council, summarized the influence of motion pictures by stating:

Moving pictures are one of the most powerful influences in the 'making of mind' at the present time. They affect the great masses of people and they affect these masses during the impressionable years of childhood and youth. The industry has developed on a strictly commercial basis into one of our most conspicuous branches of business, demonstrating that moving pictures meet an intensely felt interest.

Obviously moving pictures are doing things to our thoughts and feelings. It is high time that we discovered what these things really are. There is no problem that could be of greater concern to those who are interested in the quality of our future citizens.

2. — THE MOTION PICTURE IN THE SERVICE OF HEALTH AND SOCIAL HYGIENE

The importance of educating the public regarding public health and all that is a menace to health is recognized. Motion pictures have opened up new opportunities in the fields of medicine, health and social hygiene. Films on these subjects naturally fall in two groups: (1) scientific films intended for the use of the medical profession, and (2) films intended for general school use and for the public as a whole. There are many valuable films in both of these groups. By means of close-ups, microcinematographic films, and other special adaptations, films become an invaluable tool in medical colleges, hospitals and the in-service training of physicians. The Carl Henry Davis

Library (425 East Wisconsin Street, Milwaukee, Wisconsin) has a good list of professional films on obstetrics and gynecology. The medical films of the Eastman Teaching Films, Inc., (Rochester, New York), have been approved by the American College of Surgeons. Other films for the medical profession have been issued by various national associations, hospitals, commercial companies, and practicing physicians.

a) Films of the United States Public Health Service. There are many medical, health and hygiene films for the lay public, and for use in elementary and secondary schools. Public health departments, universities and colleges, the American Social Hygiene Association and various other national societies, the Eastman Teaching Films, Inc., the Metropolitan Life Insurance Company, and various other commercial companies maintain libraries of films in this group. The activities of the Federal, State and local government in the production and distribution of public health films are practically centralized in the Public Health Service of the United States Treasury Department. A more detailed account of the use of motion pictures in public health education follows:

Congress has made available to the United States Public Health Service only very limited sums for the preparation of exhibits for use in public health education. The amount available during the current fiscal year is \$1,000. This money is utilized in the preparation of exhibits for scientific meetings and of other material which will present to the medical profession and to the public at large the recent advances in public health and scientific fields. A small portion of this amount has been devoted to the preparation of certain films dealing with special phases of public health work. Such films are not suitable for general distribution but are to be used for special audiences. One of the films, entitled "Trachoma Work of the Public Health Service", deals with trachoma, an eye disease, in the moun-

tainous sections of the United States. Another is entitled "The Work of the National Negro Health Movement in Kent County, Maryland". This film deals largely with the activities of the County Health Officer among negroes in Kent County, Maryland, and is intended to illustrate the work of the county health officer in this particular field.

In addition, the Public Health Service has a film which was prepared by one of its officers, dealing with the technical phases of malaria prevention and mosquito control. This film is intended primarily for health officers. There is also a film entitled "The Science of Life" which is suitable for presentation before high schools, civic organizations, and various other groups. It deals in a broad way with the biology of human reproduction.

b) Other Health Films. Various State health departements have purchased from the producers films dealing with health subjects. A few of them have made their own films. These films are used by the representatives of the State health departments in presenting talks on health subjects to audiences throughout their several States, or they are lent to local health officers for similar use.

A few city and local health officers have films; but, in the main, when they wish to utilize the motion picture as a form of health instruction, they procure such films from the State health department or from one of the voluntary health agencies, such as the National Tuberculosis Association, the Metropolitan Life Insurance Company, or the American Social Hygiene Association.

It is felt that both silent and talking pictures have important places in public health education, but so far the limitation of available funds for this work has been a serious handicap, applying equally to Federal, State, and local health authorities.

Mr. William F. Kruse of the Bell and Howell Company (1801 Larchmont Avenue, Chicago, Illinois) has compiled an excellent

catalogue of medical and health films available to the profession and the lay public. It will serve to illustrate the wide variety of available films in these fields. He has also prepared a booklet on the motion picture as a professional instrument to assist physicians in making their own films. In his book entitled "Taking the Doctor's Pulse", Montague has discussed the production and use of professional medical films.

3. — THE MOTION PICTURE IN GOVERNMENT SERVICE

a) Films of various Departments of the Federal Government. Eleven agencies in seven of the executive departments of the Federal Government

in Washington, D. C., are active in the production, distribution or use of motion pictures that are educational in the widest sense. A list of these agencies follows:

- (1) Department of Agriculture :
 - (a) Office of Motion Pictures.
- (2) Department of Commerce :
 - (a) Motion Picture Production Section, Bureau of Mines.
 - (b) Motion Picture Section, Bureau of Foreign and Domestic Commerce.
- (3) Department of the Interior :
 - (a) Branch of Research and Education, Office of National Parks, Buildings, and Reservations.
 - (b) Division of Reclamation Economics, Bureau of Reclamation.
 - (c) Radio and Visual Education Section, Office of Education.
- (4) Department of Labor :
 - (a) Division of Publicity, The Women's Bureau.
 - (b) The Children's Bureau.
- (5) Navy Department :
 - (a) Bureau of Navigation.
- (6) Treasury Department :
 - (a) Division of Venereal Disease, U. S. Public Health Service.
- (7) War Department :

(a) Army Pictorial Service.

The Bureau of Foreign and Domestic Commerce of the U. S. Department of Commerce, collects and supplies data as to motion picture subject matter and statistical information. The Federal Office of Education of the U. S. Department of the Interior serves as a national clearing house for the exchange of information about the use of motion pictures and other visual aids in education. The Children's Bureau of the Department of Labor is interested primarily in the effects of motion pictures on children.

In view of the fact that these various governmental agencies do serve the people in a manner conducive to national appreciation, a more detailed account of the work of some of them is included here. By far the most extensive motion picture service of any Federal agencies is carried on by the United States Department of Agriculture and the Bureau of Mines of the United States Department of Commerce. A description of the work of these agencies and of the United States Public Health Service is included elsewhere in this report.

For thirteen years the Women's Bureau of the U. S. Department of Labor has been preparing and circulating as an important part of its program, motion pictures dealing with the problems and employment conditions of wage-earning women together with standards advocated by the bureau to promote their welfare and progress. At present the Women's Bureau is circulating four motion pictures, varying in length from one to three reels.

Because of the constant demand for and great interest displayed in its films by many groups of the public the Women's Bureau has found its motion pictures an extremely valuable educational feature. Through its films it has been able to give information about the problems of wage-earning women to many persons who otherwise would not learn such facts. A graphic presentation of these matters makes a much stronger appeal to and impression upon the average

person than does a written discourse. A much greater human interest is lent to the whole subject of the needs of women workers through the filming of women engaged in industrial processes.

The Educational Branch of the Office of National Parks, Buildings and Reservations has employed motion pictures during the past several years for both educational and publicity purposes. The use of motion picture films to illustrate lectures in many parks at lodges, campfires and community centers has gained much impetus during the past two years. The urgent public demand to increase this popular service lacks fulfillment because of inadequate funds for the preparation of suitable film material.

There are now available 77 reels of 16 mm. and 66 reels of 35 mm. films. These are in constant use by schools, churches, civic organizations and clubs. To meet more fully this need it is hoped that in the near future the number of loan films illustrating national parks may be greatly increased.

In addition to those films prepared by the former Park Service, there are on file for loan purposes a number of films illustrating many of the national parks and monuments which were prepared by interested railroads, concessionnaires or individuals.

The Bureau of Reclamation of the U. S. Department of the Interior has 30 reels of 35 mm. stock in circulation. These reels for the most part show the engineering, agricultural, and economic development of the various Federal irrigation projects.

The purpose of the film stories is to acquaint the public with the western irrigated lands. They are used extensively in schools and colleges.

As a rule, Federal Government films are available to responsible organizations upon payment of transportation costs. Most of the Government films are 35 mm. silent. There are many also available in the 16 mm. width. A list of the films available from the various government agencies, including those from the United States War and Navy Departments is enclosed. In addition to

the circulation of films, various departments of Governments occasionally use films at important expositions, such as the Century of Progress at which six departments used films.

b) Other Sources of Films dealing with governmental Functions and Patriotism.

In the non-theatrical field there is a wide variety of films dealing with citizenship, government, patriotism, American history, geography, literature, travel and other subjects that tend to stimulate national unity and patriotism. Perhaps the best-known films in this group are "The Chronicles of America Photo-plays", an authoritative, scholarly series, made by the Yale University Press to depict important episodes and outstanding personalities of American history from Columbus to the end of the Civil War. Even in industrial films, not primarily of a patriotic nature, patriotism will out.

In the theatrical field there are probably 50 pictures released in this country each year that present some phase of national life or historical development. Among these might be mentioned major theatrical attractions such as "Cimarron", "Alexander Hamilton", "Wild Boys of the Road" and "Washington Merry-Go-Round". But the most constant and significant medium in this patriotic movement is the newsreel, which keeps all of the people in the feeling that they are acquainted with the personalities that are making the history of the time.

Newsreels and short films are being used very extensively at the present time to stimulate patriotic support of the national recovery program. Hardly a week passes that the newsreels do not carry some item about the activities of the Government. In response to a patriotic appeal, eight of the largest motion picture companies in the United States recently volunteered to produce at their own expense and to supply gratis 1,000 prints each of short featurettes as a means of disseminating motion picture

propaganda in behalf of the President's Emergency Reemployment Campaign of the National Recovery Administration. It is conservatively estimated that each of the eight featurettes will be shown in 8,000 theatres for a total of 64,000 individual cinema exhibitions within a period of three months. This is only one example of the way the motion picture industry is cooperating with the Federal Government.

It is difficult for the theatre owner to satisfy his audience with a showing of governmental propaganda films. People pay their admissions to the theatre for relaxation and entertainment, and are inclined to resent propaganda in any form if they recognize it as such. An attempt to propagandize people beyond the point where public opinion warrants it usually produces the opposite effect.

The motion picture industry has cooperated admirably in the patriotic propaganda undertaken in the interests of the national recovery. It should be pointed out, however, that notwithstanding the efforts of the Motion Picture Producers and Distributors of America and various voluntary organizations to discourage the production of crime pictures, the consensus of well-informed opinion indicates that a considerable number of motion pictures are released each year that have an undesirable effect on national ideals and good citizenship.

4. — THE USE OF MOTION PICTURES IN VOCATIONAL EDUCATION

a) Vocational Possibilities.

With over 3 million families, or 13 million individuals on public relief in October, 1933, according to Harry L. Hopkins, Federal Relief Administrator and with a large unemployed population, an urgent problem arises as to what part the motion pictures can play in assisting these individuals to utilize to advantage the 100 per cent leisure time which they have at their disposal. Were films to be made commercially avail-

able which had been produced in cooperation with high grade occupational counsellors and advisors, depicting how an individual may analyse his abilities and employment assets and how to get a job, there is little doubt that such could render a distinct service in national employment readjustment.

Experience in administering the national program of vocational education in cooperation with the States has shown the Federal Board for Vocational Education that a major interest of the working man and woman is how to keep on working and improving themselves vocationally. Especially is this economic interest true when they are thrown out of employment and the paramount incentive is to get back to work. With the urge for economic self-preservation overshadowing all else, the unemployed individual is not usually in a frame of mind to give much attention to suggestions on the intelligent use of his leisure time for aesthetic and cultural improvement until he has seen a way clear to attain some measure of economic security.

Even in normal times of commercial, agricultural, and industrial activity, with unemployment at a minimum, working men and women make extensive use of a part of their leisure time to attend public evening school classes maintained in communities throughout the United States, offering instruction and training in various phases of trade and industrial, commercial, agricultural, and home-making occupations. Most of the private correspondence courses, financed directly from the pockets of working men and women, are devoted to improving vocational efficiency. The short, intensive, "cooking schools" organized at intervals in various cities by enterprising business firms or newspapers are invariably attended by large numbers of home-makers, eager to utilize some of their leisure time in improving their occupational proficiency.

In considering the possible uses of motion picture films in connection with utilizing

leisure time of the working man and woman, the vocational aspect should receive some attention as well as the cultural and esthetic values. There need be no conflict of interests in the various applications of this new educational medium, any more than there is in the average public evening school program maintained in any one of a large number of cities, which offers subjects embracing a wide range of cultural, social, economic, and vocational values.

Museums and expositions sometimes run free motion pictures for the benefit of the public. The New York Museum of Science and Industry, for example, shows motion pictures at regular periods in the museum. The St Paul Institute of General and Applied Science has a regular schedule of evening showings in various schools throughout the city. The Century of Progress Exposition at Chicago ran many motion picture showings in connection with various exhibits; and the Office of National Parks, Buildings, and Reservations has many showings of motion pictures and illustrated lectures, designed to stimulate greater use of national parks as recreation centers.

Due to certain limitations, the Federal Board has not been in a position to coordinate and unify the pioneering work which has been done in various fields and phases of vocational education and vocational guidance through the medium of motion picture films. Here and there, in certain cities and States, individual officials in charge of vocational education have experimented, largely on an amateur basis, with the motion picture film. This is also true of certain educational directors in industry.

The general purposes of such films as have come to the attention of members of the Federal Board staff have been to present information and appreciation of vocational training possibilities offered by the public schools. Films of this nature have been designed for the information of boys and girls who, on completion of the compulsory school requirements, will drop out

of school if they do not enter the vocational courses; for adult workers who may be interested in attending the evening school; and for the physically handicapped citizens and their friends who may not be aware of the public programs available for rehabilitation training. Industrial plants have developed films showing in detail the actual work of various operatives which would be valuable for vocational guidance purposes were it possible to make them generally available. In some cases, films have been made with a view to serving as direct teaching aids in connection with some technical phase or difficult manual operation.

While the application of the film to the field of vocational education and training is as yet experimental, sporadic and fragmentary, some of the specific examples listed in the appendix to this report indicate the great possibilities offered for future development and use. The field for high grade, professional type films dealing with various phases of vocational education is unlimited with the present widespread unemployment, and this condition will continue as business resumes. With the sweeping changes and technological advances, the worker will be more and more faced with the necessity of devoting a part of his leisure time to keeping abreast of the new developments, through attendance on vocational classes, and the motion picture film can be of peculiarly valuable assistance in this connection, for the film is particularly well-suited for teaching how technical work is done.

b) Films of the United States Department of Agriculture and Bureau of Mines.

Many of the available films on agriculture, home economics, industry, engineering and mining are essentially vocational in nature. The Motion Picture Bureau of the National Council of Y. M. C. A. has an excellent library of vocational films. The General Electric Company, the Western Electric Company,

and many other commercial corporations produce films on various phases of industry and engineering. Many of these films are available free of charge. Since the United States Department of Agriculture has many films on agriculture and home economics, and the Bureau of Mines of the United States Department of Commerce has many films on mining, a more detailed report of their films follows.

The motion picture activities of the United States Department of Agriculture are carried on through a unit of the Extension Service officially known as the Office of Motion Pictures. This office operates in Washington, D. C., a small, but complete motion picture laboratory for the production of its own films and maintains an educational film library of about 250 subjects (a total of 3,000 reels in all) which are distributed throughout the United States. The total shipments of films during the last fiscal year were 4,756 copies which it is estimated were shown to ten million people.

This service is designed primarily to provide educational films on agriculture, forestry, home economics, and kindred subjects to the Extension Service agencies of the States, particularly the county agricultural agents and home demonstration agents. In harmony with the general purpose of the United States Department of Agriculture, the objective in showing the films is to aid in better farm and home practices. The films are made in cooperation with several subject matter bureaus of the Department and are distributed by the Office of Motion Pictures. No rental is charged for the films, the borrower paying only the transportation charges. While agricultural extension agents have preference in booking, effort is made to serve also schools, especially agricultural high schools, churches, civic organizations and other worthy agencies. The demand from these outside users of films, however, is far greater than can be met with the funds available for buying copies of films.

In view of this situation, users who have

occasion to make more or less intensive use of Department of Agriculture films frequently find it worth while to purchase prints from Department negatives. The Government itself cannot sell prints, but the negatives are deposited with a commercial laboratory which furnishes prints to authorized purchasers at a relatively low contract price, established by competitive bidding.

Among purchasers of Department of Agriculture films are the Universities of Wisconsin, Kentucky, Nebraska, Arkansas, Pittsburgh, Missouri, Kansas, South Dakota, Tennessee, Iowa State College of Agriculture and Mechanic Arts, and Indiana University; the Governments of Mexico, Belgium, Uruguay, Colombia, Lithuania, Japan, Turkey, South Africa, Nicaragua, Haiti, Argentina, Peru, New South Wales, U. S. S. R., Australasian Films, Ltd., The Australian Cement Association, The Los Angeles, Kansas City, New York City, and Pasadena Public Schools; The Rockefeller Foundation and the National Automobile Chamber of Commerce.

The Bureau of Mines of the U. S. Department of Commerce has 57 films which deal with the mining of coal, iron, oil and copper, and with the industrial processes connected therewith, especially the production of power in all its forms. The main distributing center for the films is the bureau's experimental station at Pittsburgh, Pennsylvania, where the films are produced. Thirteen other distributing centers are located in various sections of the United States.

These films are available for loan to responsible organizations upon payment of transportation charges, as is the practice in other government bureaus. High schools, colleges, engineering societies, and various trade and labor groups are the principal borrowers of these films. During the fiscal year ended June 30, 1933, there were 34,638 showings to a total audience of 2,995,898 people. By means of illustrating processes and skills, these films are of distinct service in vocational training.

5. — THE MOTION PICTURE IN INTERNATIONAL UNDERSTANDING

Motion pictures transcend national frontiers, language barriers, illiteracy and ignorance. They are the universal educators, the Esperantists of the universe. Upon motion pictures, more than on diplomats depend the people of the world for their information concerning the lives, traits of character, and public policies of people in other countries. The cinema has important inter-racial implications and responsibilities. World peace must be based upon world acquaintance. War must be depicted as something hideous rather than something great and important.

In the non-theatrical field there is considerable international exchange of scientific films and teaching films such as the "Chronicles of America Photoplays" and the Eastman films. Every available means should be utilized to facilitate and encourage the international exchange of instructional films.

In the theatrical field there is the constant impact of the newsreels upon our own and other countries, depicting the stories of the rise and fall of nations and what science and research are achieving for mankind. Twenty-five per cent of the make-up of the average newsreel is foreign. Forty or fifty feature pictures are produced each year in the United States that portray the nationals of foreign countries. Among some of the recent productions are "Cavalcade", "Broken Lullaby", and "Paddy". Travel pictures also play an important part in acquainting children, as well as adults, with foreign people, cities, customs and so forth. There is a growing tendency to produce pictures dealing with international topics of interest to Europe as well as America.

a) Making and Circulating Motion Pictures. The following account is included here as a means of presenting a clearer picture of the production and world-wide use of American motion pictures.

A famous play is bought off Broadway. If it played on Broadway so long it must be good. Studios outbid each other and sometimes pay fabulous prices for a play or book. Copies of it go to the studio and in due time are assigned to a supervisor and writer to adapt for motion picture production. Sometimes a year, two years, sometimes only six months of intensified labor are required to rewrite this Broadway play or successful book. Sometimes only the title remains intact, so complicated has become the process of transferring from one medium to another. The casting problem, and actual production and editing. And the rough picture is tried out on a preview audience and if they do not laugh just where they are expected to, or worse still, if they laugh where they should not, or sigh with boredom, the picture goes back for retakes sometimes as complicated as the first process. The studio takes another guess, but eventually the finished product emerges — a triumph of the cinema art. It is really amazing how good some of them are.

We visit Hollywood and we journey around the world and observe how the output of that famous center of international workers is received and displayed among foreign people. In a Hollywood studio we sit in silence for hours and watch the director toiling on a new picture; we sigh, we look in amazement at the infinite detail of production; the patience of Job is personified in the director who for a dozen times, a hundred times, even a thousand times, has his performers of all races enter or leave a stadium, utter a cry, or jump from a precipice. Day after day, the ordeal is repeated. In time a new picture is released. People of many nations participated in its production, and, if it proves a worthy drawing card for box offices, it may go into many editions and languages and eventually be seen by millions of people. In the film's course about the world for months and years it carries at least some phases of acquaintanceship. It depicts life and conditions in one

part of the world for the benefit of those in other parts.

Consider the diversity of subject matter being woven into the movie at Hollywood; and Hollywood is only one of the great picture making centers of the world. Here are a few topics in the making; drama, comedy, history, travel, agriculture, industry, hygiene, railroading, shipping, mining, pastimes, current events.

And where are these American films distributed? A correct answer might be the whole world, including even Little America, which has a population only once in a while. European countries, although they manufacture motion picture films on enormous scales, are among the leading patrons of the United States film. Even during one of the depression years, Great Britain and France increased the importation of American pictures by more than 20,000,000 feet of film. The Dominion of Canada and the twenty Republics of the American Continent obtain from the United States millions of feet of film annually; and each of these countries has supplied subject matter for innumerable motion pictures. For Latin American history alone Hollywood has provided a library of worthy dimensions in addition to making researches into the dress and customs of southern nations from the days of the Incas to the present time.

The Jivaro Indians of the Upper Amazon region are among the wildest of the earth's peoples. But in 1932-33 numbers of these denizens of the jungles followed trails that led to an American rancher's home in eastern Ecuador. The object of their pilgrimages was to see the movies and hear the radio — those miraculous sights and sounds that came from nowhere and caused the widest of the wild men no end of wonder and amazement.

Is it not interesting to look backward into the centuries and see how the aborigines practiced their handicraft? No people of the Middle Americas are more picturesque in garb or more faithful in following ancient methods of spinning and weaving than

the Indians of Guatemala. Journey along the highway from the Guatemala capital to the curious old city of Quezaltenango; stop here and there and observe descendants of the Tultecas at their daily tasks. It takes time and money to go to Guatemala. But the motion picture industry has sent its agents to mingle with the people; the results of their labors comprise some of the most interesting motion picture films ever "shot". They present burden-bearers on wild trails, the pottery makers at their tasks, garment weavers in action, the busy corn grinders, the husbandman — all following customs of distant yesterday marvellously recorded by movie men of today. Such films make history far more entertaining than lengthy printed books and records.

In a section of darkest Africa the native rubber worker has a new urge. He is employed at a fair wage. Motion pictures show him how to set out young rubber trees, how to tap older ones, how to protect himself from insects, how modern sanitation helps him to live in more comfort than he has known. In short, the motion picture is educating some of the most ignorant of peoples. A long time must elapse before the primitive African learns his letters and begins to use the primer. Meanwhile this new kind of education undoubtedly expands his mind to a remarkable degree.

Conversely, the record of these wild workers is brought to school and public audience in the United States where thousands, if not millions of people, learn how the ignorant African works and begins to take part in the real progress of mankind.

b) A Means of spreading Information. The Carnegie Foundation for World Peace has compiled a list of films on international understanding. The Burton Holmes Travel Films are excellent. The United States Departments of State and Commerce and various other agencies are interested in the use of motion pictures to create better international understanding. The lens of the motion picture camera is

peculiarly analytical and quite uniformly betrays the presence of ulterior motives. Studied efforts to utilize the photoplay for international understanding may include a lot of propaganda. Propaganda, no matter how ideal the purpose may be, is futile if it is recognized as such.

The International Union of American Republics at Washington (Pan American Union) has long utilized the motion picture in introducing peoples of American nations. A division of the organization gives special aid to club women in arranging their international programs, and lends motion picture films to clubs all over the United States. There is no charge for this service other than the nominal express fees. A similar feature is that of supplying films for university use. Thus, both in clubs and in institutions of learning the Union brings features of visual inter-American progress to thousands of people. A few titles further suggest the scope of information thus provided: After the Government of Bolivia caused a series of films to be made depicting her various mining operations the Union obtained copies and provided for showing them in the United States. In the same way the Brazilian coffee film, that of the banana industry, the Argentine cattle business, and other motion pictures were loaned to interested organizations in this country. Many popular travel films have likewise introduced the people of the United States to some of the marvelous sights in South and Central America. Conversely, the Union has been instrumental in obtaining industrial, scientific and sanitary films made in this country which have been widely displayed in Latin America.

The educational value and good understanding features of this work are far-reaching; they have developed in many people a desire to know more of the subject matter they have seen on the screen; they have intensified the desire of tourists to visit and personally see the wonders of Latin America.

The motion picture is as susceptible of

creating wrong impressions and developing ill-feelings as it is of fostering friendly interest among peoples. The characteristics that make one group of people a distinct nation are different from those of any other nation. The diversity is reflected in the lives, customs, and artistic conceptions of the various nationals. Because of their dynamic qualities, motion pictures make a universal appeal. Motion picture producers are put to considerable effort to avoid offending the sensibilities of nationals of other countries.

There have been many tributes paid to foreigners in American-made motion pictures. Naturally, such tributes are accepted as deserved. But when a foreigner is portrayed in an unfavourable light, some of his fellow-countrymen are sure to protest. Such protests have been of sufficient economic importance to the American producers that they have worked out a procedure through which responsible officials such as custom officers, commercial attaches, or in some instances, the embassies of foreign countries are permitted to put their stamp of approval on pictures dealing with their interests, prior to release.

The acceptability of American films in foreign countries is a subject that can be more appropriately discussed by the representative of various countries in an international conference than by representatives of the United States alone. Constructive suggestions resulting from such deliberations will be welcomed by practically all motion picture producers in the United States, as the utmost precaution is necessary not to offend the sensibilities of nations. Citizens of a country do not like to be depicted in motion pictures as being backward, stupid, criminal, or ridiculous. Photoplay drama calls for jesters, villains, and odd folk. The foreign villain — even the naturalized villain — is disappearing from the American picture.

In conclusion, from a consideration of the motion picture industry as a whole and a review of the remarkable achievements

and innumerable ramifications of the subject matter that concerns the giant industry one can form an idea of how the photoplay is introducing peoples to each other all over the world. It is certain that the exchange of motion pictures among countries has contributed to the knowledge of foreign countries. It does not necessarily follow, however truthfully these pictures have represented the countries of their origin, that this knowledge has resulted in better understanding, in the sense of building friendly relationships.

In the matter of the *spread of information* about the nations, their people, customs and institutions, for which the motion picture has been responsible, it is difficult to improve on the words expressed by Sir Phillip Gibbs some two years ago. He said, reviewing changes since the World War :

“ The ordinary people whose lives were at stake in this game of international political intrigue were deeply and profoundly ignorant of the world beyond their own frontiers. They had very little interest in the world problems because their imagination was bounded by their own parish and their little local affairs. They disliked ‘ foreigners ’ *whoever* they might be. Their ideas about life — I mean the ideas of peasants, small shopkeepers, city clerks and the middle-class masses who make up the bulk of a nation — were traditional, parochial and national. They lived behind walls of prejudice, intolerance and ignorance. Their minds moved slowly. Even their bodies did not get about much beyond their own cabbage patch or workshop, in spite of railway trains. Before the war in a small country like England I met elderly men and women who had never made a railway journey. They followed their fathers’ footsteps no further than the village green. Now youth goes careering about the countryside, and families no longer shut themselves up in mental fortresses, as they used to do in Victorian England. The moving pictures, and now the talkies

are making a change in the mentality of mankind.

6. — MOTION PICTURE LEGISLATION

a) National. Motion picture legislation in the United States may be classified as Federal, State, and local. Being a highly decentralized nation in which education is left, in main, to the various States, Federal legislation has only an indirect bearing on the production, distribution and exhibition of educational films. There exists no Federal law obliging theatres to include educational films in their programs. In fact, educational, religious, scientific and philanthropic agencies may import films free of the duty charged on the importation of theatrical motion pictures, provided the films are for the agency's non-commercial use. Even the recently approved *Code of Fair Competition for the Motion Picture Industry* (No. 124), exempts non-theatrical motion pictures from the provisions of the code.

In the field of theatrical motion pictures, it has been the past policy of the Federal Government to leave to private industry and voluntary endeavor many responsibilities which the typical European government would assume. This policy has met with the general approval of the industry which prefers self-imposed regulations to those imposed by the Government. The *Code of Fair Competition for the Motion Picture Industry* was prepared with the assistance of various representatives of the industry. Excepting the code, the only Federal motion picture legislation is a law prohibiting the importation of prize fight films, and their shipment in interstate commerce.

b) State. State motion picture legislation is of two types, censorship laws and legislation regarding safety in theatre operation. Most States have legislation designed to reduce the fire hazard involved in the projection of theatrical motion pic-

tures, but only eight States have censorship laws. Six of the States — Kansas, Maryland, New York, Ohio, Pennsylvania, and Virginia — have State censor boards to pass on all theatrical motion pictures to be shown in each State. The Massachusetts board censors Sunday shows only. Although Florida has a censorship law on its statute books, it has not been in operation for several years. The purpose of censorship, as defined in the laws, is to exclude films which are sacrilegious, obscene, indecent, immoral, or such as tend, in the judgment of the board, to debase or corrupt morals. Educational films usually are exempt from the censorship provisions applied to theatrical films.

At least twelve States, Hawaii and the District of Columbia, regulate by statute the projection of motion picture film and film strips in schools, assembly halls, churches and other non-theatrical buildings, according to a study being made by Miss Marian Telford of the National Safety Council. The study further shows that eight of the twelve States forbid the projection of nitro-cellulose (the so-called "flam") film unless fire-resisting booths are provided. Some States require the employment of licensed motion picture operators for all projections of nitro-cellulose film. Other States do not. Many cities have municipal regulations regarding the projection of motion pictures.

c) Local. At least thirty-five cities in the United States have municipal regulations in the form of censorship or restriction of attendance at motion picture theatres. In main, the municipal censorship ordinances are intended to exclude films that State censorship boards would exclude.

Some of the ordinances, however, enter into considerably more detail regarding the films to be excluded than the State statutes do. In some instances, children are not permitted to attend the exhibition of films that are approved for adults. Other or-

dinances specify that children must not be excluded from the exhibition of any approved movies.

7. — THE TECHNIQUE OF MAKING AND DISPLAYING MOTION PICTURES

The discussion of the international aspects of motion picture production in Section 5 of this report will serve to illustrate the great amount of work involved in the production of theatrical motion pictures in the United States. From the time the story is written or selected through the various stages of its production the choice of cast, settings, acting, photography sound recording, and so forth, the production is carried out with the highest degree of skill procurable, and aided by the finest technical resources that science has produced. No expense is spared to insure that every detail meets the high standard of art and technical excellence that is set up for the picture. Practically every feature picture represents an outlay of a quarter of a million dollars, and some of them actually reach the million dollar mark (1) and (2).

a) The Production of Educational Films. The technical resources upon which the educational film can draw are practically limitless. Unfortunately, the outstanding craftsmanship of American cinematographers that is so evident, even in the least important theatrical productions, has thus far found but limited application in the making of educational films.

Much of the non-theatrical film now in use was produced ten or more years ago. The motion picture industry has made tre-

mendous progress in that time, with the result that these old educational pictures look extremely inferior by comparison, even if only because of their technical date line. There are a few outstanding films in the non-theatrical field that may be useful for many years, and others that will become valuable as historical records, but the principle must be insisted upon that the makers of educational films provide nothing but the latest and best. The best is not too good for the school.

Mere labelling of outworn or outmoded theatrical short subjects as educational does not fit them for classroom use, although proper re-editing would make many of the newsreel and short feature films valuable to the teacher. This procedure offers much promise even with some full length features. An excellent educational film on customs in the Middle Ages was cut out of the Fairbanks feature, "Robin Hood". But the major educational film production of the future should be planned with the direct needs of the school in mind, it should involve the closest cooperation between pedagogue and film technician, and then be tested and further adapted in actual classroom use. Films made by such agencies as the University Film Foundation, Yale University; UFA; ERPI; and Eastman Teaching Films, and referred to elsewhere in this report, point the way in this respect.

Though still in its infancy, the field of the school-made film offers much promise to teachers and students. The production of such films involves relatively little special equipment other than a 16 mm. amateur motion picture camera so widely used outside the school. So-called "photo flood" lamps, quite inexpensive, that fit any ordinary socket meet fully the erstwhile difficult problem of illumination. If a teaching film is to be made, the scenario should be worked out in full detail by the teaching staff, and approved by those in charge, before a single foot of film is made. In many schools it will be found that some member

(1) COWAN LESTER. *Recording sound for motion pictures*. New York, N. Y., McGraw-Hill Book Company, 1931, 404 p.

(2) DALE EDGAR. *How to appreciate motion pictures*. New York, N. Y., The MacMillan Company, 1933, 243 p.

of the staff is personally interested in movie making, and consequently proficient in manipulating the camera.

Besides teaching films, numerous schools have found it advisable to produce pictures of a general informational character in order that fellow schoolmen and the general public also might understand clearly what is being done or projected, in new methods, social services, or even regular routine. Thus New Britain, Connecticut schools tell the story of the platoon system in film; San Diego, California schools tell of their intimate tie-up with the city museum; the Chicago schools tell of their special work for crippled, blind, and problem children. The latter films were used most effectively at the recent Chicago Century of Progress Exposition.

Still another type of school-made film is the dramatic venture, engaged in by students under teacher guidance. Very creditable productions are to be noted in high schools in various parts of the country, and invariably the screening of these films in the school auditorium cements more closely the bonds between the school and its community. In the process of making these pictures the students get a deeper insight both into the technique of photography and the mysteries of movie making. This stimulates critical study of the cinema and promotes a richer understanding of pictures subsequently reviewed on the theatrical screen.

b) The Projection of Educational Films. There is no national system for the distribution of apparatus for the projection of educational films. Occasionally motion picture projectors are purchased by Federal or State governments, but, in the main, they are purchased by local groups from commercial distributors. At the present time, most of the non-theatrical projectors in school auditoriums and public halls are 35 mm. silent projectors. Only within the last two or three years has sound apparatus been purchased to any material extent

for school use. Sound reproduction systems are being installed in many of the new schools in the more prosperous areas of the country. Both sound-on-film and sound-on-disc systems are in use. Projection booths and much other apparatus, such as is listed in the Film Daily Yearbook of Motion Pictures, are used in non-theatrical auditoriums.

The 16 mm. silent portable projector is the type most commonly used in classrooms at the present time. Ordinary window shades darken the room sufficiently. An electrical outlet plug in the baseboard at the rear of the room is the only additional building facility involved in the introduction of the motion picture in the classroom procedure. With the modern high-power lamps used in the latest projectors, and adaptable at least in some makes of older projectors, the same machine will serve most school auditorium needs.

There is no longer any necessity to provide a special darkened visual education room for the showing of slides and motion pictures. At best this practice was doubtful; it divorced the visual material from the subject that it was intended to serve and disrupted rather than coordinated a full rounded-out classroom presentation.

The recommended procedure today is that the compact, light weight projector is set up in the rear of the classroom on desk or stand; the screen is pulled down behind the teachers desk, just as a map would be; the shades are drawn as the projector is being threaded; and the picture fits into the lesson procedure with no more disturbance than would be occasioned by reference to map, blackboard, globe or other customary visual aid.

With the advent of the talking picture the procedure is little, if any more complicated. With sound-on-film the projector is but little larger; the threading just as simple. Any teacher, or any pupil of junior-high age upward, can easily master this. A speaker is brought to the front of the classroom placed beneath the screen, and the lesson proceeds with the additional advantage of

vocal or other sound accompaniment to the motion picture story. With the sound-on-disc method a third element, the phonograph record is introduced and the only additional feature is the starting of the film and record together and their running in synchronism.

8. — THE SYSTEMATIC INTRODUCTION OF MOTION PICTURES IN TEACHING

The subject of this report divides itself into two parts: first, the extent to which motion pictures are used in the schools of the United States; and, second, a suggestive method of introducing the motion picture as an aid to instruction in American schools. These two phases will be approached as far as possible in the light of surveys and experimental data which have been developed in the United States and England in the past fifteen years.

a) The Value of Visual Aids in Instruction.

Preliminary to a consideration of the problems themselves, attention is directed to a series of important investigations which call attention to the need of improved instruction in the American schools and colleges, and to the values and constructive results arising from the use of visual aids in the classroom.

Several years ago, American educators were startled by the report of Dr. Henry S. Pritchett, of the Carnegie Foundation for the Advancement of Teaching, which revealed that the average college senior knows but 61 per cent of the words in familiar use by educated people. This prevalence of verbalism has been confirmed by more recent investigations. It is the consensus of well-informed opinion that there is a real need for improved methods of instruction, particularly the use of media which will furnish meaningful content to the school curriculum.

Further experimentation in recent years has brought to light the fact that instruction

can be and has been improved through the use of visual aids. The outcomes of the investigations conducted by Freeman and his co-workers at the University of Chicago; Knowlton and Tilton at Yale University; Wood and Freeman; Marchant; Consitt; the National Union of Teachers in the schools of Middlesex, England; Clarke; Arnsperger; Erpi Picture Consultants; Harvard University; and the very recent Pittsburgh study, all reveal that visual aids have definite values. The results of these experiments which include the use of the major visual aids demonstrate that the proper use of visual material:

- 1) Increases initial learning,
- 2) Effects an economy of time in learning,
- 3) Increases permanence of learning,
- 4) Aids in teaching backward children,
- 5) Motivates learning by increasing:
 - a) Interest,
 - b) Attention,
 - c) Self-activity,
 - d) Voluntary reading,
 - e) Classroom participation.

While this report deals primarily with the motion picture, no one visual aid should be regarded as covering the entire field, for all visual aids, namely, apparatus and equipment, school journeys, objects-specimens-models pictorial and representation materials, contribute to meaningful instruction.

b) The Extent of the Use of Motion Pictures in Teaching.

Having indicated, first the need of improved methods of instruction in the schools; and, second, the values of visual aids in instruction it seems appropriate to proceed to the analysis of the first problem of this report: the extent to which motion pictures are used in the schools of the United States.

Unfortunately, data on this problem are few and unreliable. The main sources of information are the investigations by E. I. Way of the United States Department of Commerce, the survey of Dr. F. Dean

MacClusky, the directory of the Department of Visual Instruction of the National Education Association, the courses in visual instruction offered by colleges and universities, and figures compiled by the Visual Education Bureau of the Pennsylvania Department of Public Instruction.

The Way report of 1929 shows that only approximately 6,000 of a total of 25,717 supervisory officers replied to the questionnaires sent out in an effort to determine the number of motion picture projectors in use in the schools of the nation. Two-thirds of those replying reported the use of motion pictures. The steady growth in the use of 16 mm. films in class-rooms is reflected in the reports from six cities in the United States. During the school year 1931-32, there were 101,070 showings and during the school year 1932-1933 there were 148,943 — an increase of over 47 %.

Dr. Dean F. Mac Clusky's report of his survey, published in 1932, touches this same field as well as several other phases of the visual education situation. Commenting on this report, former Governor Carl E. Milliken says, "It is not so much the number of schools using visual instruction, the projection machines discovered active in class-rooms; in short, the physical equipment for visual education, as the general progress in interest and in understanding and appreciation of the new technique that gives the survey a sense of satisfaction with what has been accomplished and an optimistic outlook for the future" (1).

From these available data, a conservative estimate of the percentage of schools in the nation using motion pictures in classroom instruction would not exceed ten per cent. However, in a number of city school systems motion pictures are used effectively as aids to instruction. For example, several cities own film libraries for the con-

venient use of teachers. Pittsburgh, Pennsylvania, with a school population of a million has a motion picture library of about 4,300 reels.

A regrettable feature in all these surveys is the fact that superintendents and supervising principals of schools, either through lack of knowledge or lack of interest or both, do not take the trouble to supply information of inestimable value to supervising officers, teachers, parents, and school children of the entire country. Part of this apathy is due to the technique of investigation, *i. e.*, the questionnaire, but the total indifference of school officials to these surveys cannot be assigned wholly to this procedure. In the light of the value of the motion picture and its contribution to enriched, meaningful instruction, it is to the discredit of American school officials and teachers that its use for instructional purposes is not more widespread.

c) Reasons for Failure to use more Motion Pictures in Schools.

Two vital weaknesses are revealed in a study conducted by the Visual Education Bureau of the Pennsylvania Department of Public Instruction. The investigation covered a cross-section of one entire State and parts of two others. It had to do with pictorial materials and school equipment. The test included sixty-two groups, ranging in number from twenty-five to 1,820 teachers. The results showed that only 11 per cent knew definite standards for evaluating still and motion pictures; and but six per cent knew the minimum amount of standard equipment necessary for effective instruction. This lamentable condition is probably representative of all parts of the country. The obvious conclusion is that teacher training institutions have not met their responsibility.

Sufficient data are revealed in these surveys to explain the lack of use of the motion picture in the school rooms of the country. These causes of lack of use of motion picture are :

(1) MILLIKEN CARL E. *Visual Instruction its value and its needs*. In "International Review of Educational Cinematography", 4:799-800, October, 1932.

1) The expense of projectors and films,
2) Lack of instructional films up to the last few years,

3) Lack of understanding of the values of the film in instruction,

4) Insufficient technical skill of teachers in the use of motion picture projectors and films,

5) Failure to correlate films with the curriculum,

6) Failure of school officials to adapt available films to the curriculum,

7) Failure of administrative officers to budget money for film materials,

8) Failure of professional teacher organizations to give proper recognition to visual education in their programs.

Data included in several of the reports touch upon cause number eight. It is the fact that little or no consideration has been given visual education in National Education and State Teachers Association programs. Only once in ten years, the reports reveal has this subject had a place on the general program of the National Education Association. In only seven States has visual education, though it touches all subjects, had even a minor place in the section programs of the annual State teachers association meetings.

The Department of Visual Instruction of the National Education Association and similar organizations are seriously endeavoring to bring before the nation the value of motion pictures in instruction and the most effective method of procedure in using these aids.

If the effective use of pictorial materials enriches and vitalizes instruction; effects an economy of time and money in instruction; increases initial learning; increases permanence of learning; aids in teaching backward children; increases interest, attention, self-activity and voluntary reading — and scientific data show that it does — then it is a responsibility of professional organizations to bring these facts to the attention of school officials and teachers so that necessary materials may be made

available to the schools and teachers so trained that school children may profit by their use.

d) More School Use of Films Probable. Happily, this picture of the educational situation in its relation to the use of motion pictures has been brightened by definite trends from various directions. The press, for one thing, is disseminating information concerning the value of motion pictures. Entire issues of educational journals are being devoted to the use of visual aids. Several excellent books have recently been published in this field. Metropolitan newspapers are devoting considerably more space to the discussion of the use of motion pictures in classrooms and the particular values of these pictures. Several excellent books have recently been published in this field, and school systems are issuing booklets or manuals for the use of visual aids. The only magazine published in the United States that is devoted exclusively to the use of motion pictures in education is *The Educational Screen*.

There has been an increase in the number and complexity of investigations in the use of motion pictures. Both the talking and silent pictures are being investigated in their relation to learning by the leading schools of education of the country. These investigations are being carefully and elaborately planned, and the results show increasing reliability. Furthermore the influence of the theatrical motion picture has been studied by outstanding investigators as previously reported.

In recent years there has been a growth of films for instructional purposes. A wealth of excellent material has been produced by leading universities and several motion picture corporations. These films cover many different subjects taught in public schools and colleges.

The Visual Education Department of the National Education Association at its 1932 meeting in Atlantic City made a construc-

tive contribution in the following resolutions :

Whereas, experimental studies, research, and surveys have revealed definite and important values for visual-sensory aids ; and

Whereas, knowledge of these visual-sensory aids and a technic for their use requires special preparation ; be it

Resolved, That teacher preparation institutions of the country be requested to require from every one preparing to teach in the schools of the country, a laboratory course in visual-sensory aids ; and

Whereas, We believe that much confusion and duplication of effort will be avoided by a mandatory course ;

It is Therefore Recommended, That the core of such a course shall consist of the following elements common to practically all subjects : Research, historical background, psychological aspects and verbalism, projectors and projection, school journeys, objects, specimens, models, museum procedure, pictorial materials as slides, film slides, still films, motion picture films, stereographs, and proper care of same, still and motion picture camera techniques and blackboard and bulletin board techniques ; and be it further.

Resolved, That we recommend to school officials of the United States that they encourage teachers in service to take visual-sensory courses, wherever such courses are available, and that we recommend to those responsible for educational programs, for State organizations and otherwise, to include the subject of visual instruction on their programs.

Furthermore, teachers' colleges are rapidly organizing courses in visual instruction. In 1927, 82 colleges offered visual education courses during their summer sessions. In 1932, this number had increased to 212. One State has made a course in the use of visual aids mandatory for all preservice teachers, and other States are undertaking similar movement.

In addition to these indices of progress,

the 1932 *Visual Education Directory* showed 223 officials in charge of city, district, and county departments of visual instruction. Figures for the year 1933 show that number to have increased to 253.

In concluding the analysis of the extent to which motion pictures are used in the schools of the United States, it may be said that :

1) Less than 10 per cent of the public schools of the nation make systematic use of the motion picture for instruction.

2) Increasing attention to instructional motion pictures is being given by the American press.

3) Elaborate investigations in motion pictures as aids to learning have been made.

4) Better instructional films are being made available for school use.

5) Teacher training institutions are offering courses in visual education.

6) The Department of Visual Education of the National Education Association has recommended the training of teachers in visual instruction.

7) School districts are increasingly inaugurating departments of visual instruction.

e) Some Essentials in introducing Films in Teaching. In spite of the values of films, the increase in instructional

films, the demand for teacher training in projection technique, the elaborate experimentation with motion pictures, the popularity of films, the influence of films on American life, and the desire of educational leaders to improve the quality of instruction, the fact remains that the film has not been given its proper place as part of school equipment. This failure can be charged to an inexcusable indifference on the part of both administrative officers and school teachers. In defense of these educators, it should be pointed out that the scarcity of films correlated to subjects in the curriculum and the expense and difficulty in securing them are important factors in determining the attitudes of the

educators. To overcome this inertia several suggestions become necessary, and these suggestions have to do with part two of this report.

A first essential in the systematic introduction of the motion picture in the schools of our country is the necessary preparation on the part of teachers. This can be accomplished if supervising officials and the presidents of teacher training institutions can be aroused to their responsibility in the matter. State Departments of Public Instruction can help bring this about through conferences with superintendents of schools, through having teacher training institutions offer visual education courses, and by requiring teachers to take such a course before they are licensed to teach. In this connection, a summary of the experimental data on the use of films in the classrooms, techniques of their use, comparative values, correlation with the curriculum etc., should be made available for study on the part of all teachers and school officials in the country.

A second essential is the adaptation of films to the various instructional units, *i. e.*, establishing the definite relationship of the film to the unit of instruction and indicating just where the film should be used. Various producers of educational films have encouraged experimentation by educators to integrate films with various units of instruction. Freeman and Wood gave this problem considerable attention. Later, Arnspiger made a valuable contribution on the usefulness of sound pictures in teaching certain units of instruction in natural science and music. A recent publication, "Modern Trends in Education" — A Syllabus for a Teacher Training Course Utilizing Educational Talking Pictures, can well serve as a model for those who undertake the work.

A third and very important essential is the matter of appropriating money in the annual budget for the purchase of films for the use of school districts. It is ridiculous to expect parent-teacher groups, civic

organizations, or philanthropic citizens to supply necessary equipment for the schools. The responsibility belongs to the school boards. The public schools are the most important enterprise with which the State is concerned, and steps should be taken to have the legislatures appropriate sufficient money so that this material can be supplied for instructional use.

School systems that make systematic use of classroom films frequently find it more economical to purchase than to rent them. The late Dr. Thomas E. Finegan, president of Eastman Teaching Films, Inc., and former superintendent of public instruction in Pennsylvania, points this out in his article on "Classroom Films" which appeared in the April, 1931, issue of the *Harvard Teachers Record*: "The amount paid for a few rentals of a film", said he, "is sufficient to purchase it for permanent use."

If film service is to be made effective, films must be available for daily use in the classroom as maps, charts, textbooks, reference books, and scientific apparatus are now available for the purposes which they serve". Dr. Frank E. Spaulding, Sterling Professor of Education at Yale University, adds, "Just as books needed for continuous study and reference should be in the permanent library of an institution, so should films be in its permanent possession ready for use at any time and as many times as may be desired".

Every visual education program should be organized according to a definite plan. Its administration will require a trained personnel. Mrs. Anna V. Dorris sets up an acceptable plan in her book on "Visual Instruction in the Public Schools". Dr. F. Dean McClusky outlines a workable plan in his book "Visual Instruction — Its Value and Its Needs". Colonel F. L. Devereux in his recent book on "The Educational Talking Picture" sets up an excellent plan.

Regarding distribution, various agencies have undertaken the circulation of films in different States. Colleges and universities

have rendered a valuable service in this respect. Teacher training institutions here and there have undertaken the circulation of films in the areas which they serve. In several cases, adjacent school districts have combined as an economical measure to supply their schools with films through the circulating method. The spirit of these agencies is to be commended, but this method will never supply the needs of the schools. There is a strong feeling that State departments of education should undertake to supply films to the schools of their respective States. This procedure is especially valuable as an introductory device and for films not extensively used. An objection to this is that courses of study are very similar, and the simultaneous need for a particular film by a large number of schools would make such a plan very expensive and possibly not feasible. An approach to this objective might be a pictorial service by State teachers colleges in their respective areas since these institutions prepare teachers for the public schools and are deeply interested in the type of service their graduates render the various communities.

In the last analysis every school district should own the materials which its teachers require for effective instructional work. School officials generally make a per pupil allocation for textbooks, pencils, tablets, laboratory supplies, etc., but only in isolated cases does the budget include money for visual materials. Why this is so, is a problem that should be solved. Here again is there a need for a committee to study the subject and recommend a specific per pupil allocation that should be made for these important instructional materials.

What has been discussed in this part of the report is regarded as essential to the systematic introduction of the motion picture in teaching — and the motion picture is considered one of the greatest educational inventions of modern times.

The dominant note in education today is the improvement of the quality of in-

struction. If money can be supplied for the purchase of necessary visual materials, if these visual materials are definitely related to the units of instruction, if the preparation of teachers in the techniques of visual materials is made mandatory, and if these visual materials are used effectively in the school rooms of America, there will result one of the greatest contributions to the improvement of instruction our country has ever witnessed.

The whole problem resolves itself into one of cooperative effort. If the United States Office of Education, State departments of public instruction, county and district superintendents, the National Education Association and State teachers associations join forces, their concerted action may bring about the desired results.

9. — EDUCATIONAL PROBLEMS OF A GENERAL NATURE RESULTING FROM THE SYSTEMATIC INTRODUCTION OF MOTION PICTURES IN TEACHING

a) Methodology of the Use of Motion Pictures in Schools. Although the administrative program has to allow for some minor technical changes in order to accommodate a film program, the teaching method employed with films is quite similar to that used with other classroom aids such as maps, charts, slides, and the like. In cases where the film supplements the ordinary classroom instruction, the film has been used effectively in introducing a unit of subject-matter. In such instances the teacher generally gives an overview of the material before the introductory showing, thus enhancing the value of the film. Pupils are then acquainted with what they are to see; they have positive suggestions concerning the "high-lights" of the film. A period of discussion should follow the first showing, at which time all the elements of the film may be discussed freely and completely. Then follows a period of teaching after which the film is presented

a second time in order to clarify concepts which are pertinent to the subject. This second showing has generally been given at a point half-way through the study of the unit. As an effective means of crystallizing and vitalizing the subject-matter, the film has been shown again as a culminating activity in the study of the unit. In this way it serves as a review, tying together all the elements which have been studied (1).

b) Comparison of the Effectiveness of Film and other didactic Auxiliaries.

In the experimentation carried on during the past two years by several agencies, the effectiveness of the cinema in teaching has been compared with the effectiveness of many other aids. In at least three of these experimental projects, the control groups, which were compared with the film groups, were provided with all types of teaching aids other than the film. These teaching aids have been still pictures, photographs, lantern slides, actual specimens, field trips, carefully prepared outlines of study, and the like (2).

The consensus of well-informed opinion is that all types of visual aids have their place in education. The film has demonstrated its efficacy, especially in presenting those elements which involved motion, growth, magnification, and sound. The experiments conducted by Doctors Wood, Freeman, Knowlton, Tilton, and other have demonstrated the effectiveness of the silent film. A few comparisons have been made of the relative value of the silent and the sound film as teaching aids. It appears that for some types of material the silent films with demonstration lectures may be about as effective as sound films, if sound

is not involved in the elements being presented. Since pupils have become accustomed to sound pictures in theatres, however, silent pictures without lectures seem too old fashioned to many pupils to command respect.

Members of the Department of Education of Yale University reported at the Ninth Meeting of the International Congress of Psychology that experimentation showed that the pupils studying with *The Chronicles of America Photoplays* learned 19 % more than others and learned more quickly; remembered 12 % better; participated in class discussion 10% more often; and, outside of their classroom work, voluntarily read 40 % more supplementary material in the field of American history.

The most extensive project in the production of sound motion pictures as an integral part of class instruction in the new educational plan is now being carried out at the University of Chicago. Eighty sound pictures are planned — a series of twenty pictures in each of the University's four general divisions: physical sciences, biological sciences, social sciences, and the humanities. Seven sound films dealing with specific instructional units in physical sciences have been produced to date. These films which are produced by the Erpi Picture Consultants rank as models in technical excellence and instructional skill.

c) Subjects in which Films could be used as an Auxiliary in accordance with the Curricula.

Practically every subject of the curriculum can be enriched by the use of films. Such enrichment may be direct, such as the information acquired from a film on the specific topic being studied; or indirect such as the concomitant learnings accruing from the presentation of a film depicting the applications of the subject being studied. In all respects the film tends to broaden the horizon of learning in that it presents relationships in clear patterns.

(1) DEVEREUX F. L. *The educational Talking Picture*. University of Chicago Press, 1933, Chap. VII.

(2) ARNSPIGER V. C. *Measuring the effectiveness of sound pictures as teaching aids*. New York, Teachers College, Columbia University, 1933.

One essential principle to be followed in the production of teaching films may be stated as follows: the film should present those materials of instruction which the teacher has difficulty in presenting through any other medium of instruction. In other words, the film should not attempt to do that which can be done as effectively and inexpensively by other means. There are many limitations to learning which the film because of its inherent qualities can overcome (1). Some of these are: the inability of an individual to perceive certain movements in nature because of the rapidity or the slowness with which they occur; his inability to see objects which, because of their extremely small size or because of their great distance in space, are beyond the range of the unaided human eye, or to focus his thought on unfamiliar scenes; and his inability to reach backward into the past and reproduce objects and actions which contribute to the conditioning of his present environment. The film can overcome these rather obvious limitations to learning by combining in numerous desirable combinations the inherent advantages of the telescope; the microscope; the moving picture camera with its many devices, such as slow motion, time-lapse photography, and animation; and sound recording, amplifying, and transmitting devices (2).

The sound film has proved itself extremely efficient in presenting science materials to pupils in the elementary grades, in acquainting pupils in the junior high school with knowledge of the instruments of the symphony orchestra, and in acquainting adults with the technical construction and operation of scientific apparatus (1).

d) Collaboration of Experts in the Production of Didactic Films.

The production of the teaching film depends upon the coordination and integration of the work of the philosopher, the psychologist, the student of method, the subject-matter specialist, the educational administrator, and the expert film technician. The collaboration of these experts begins with the survey of the subject-matter field for which films are to be prepared. This survey requires a bringing together of the contributions of the philosopher, of subject-matter specialists, and of teaching methods specialists to determine the guiding aims and objectives of the subject as well as the subject-matter content by which these aims and objectives are expected to be achieved. Further collaboration occurs between the psychologist, the methods specialist and the expert film technician in the matter of analyzing subject-matter for inclusion in the film. The production of supplementary materials requires a continuing cooperation among all these specialists in order to insure the film's unique contribution to learning in the field being presented. After production begins, the educational expert and production specialist should maintain a continuing collaboration until the film is finally completed. It can be seen, therefore, that it is only through the united efforts of these experts that the educational film finds proper place in the curriculum of the schools.

e) Psychological Effects and Pedagogical Reform in connection with the Film in Schools.

Experiments have indicated that the pupil suffers no detrimental physiological effects as a result of the proper use of films in the classroom.

Psychologically, the film has proved to be an efficacious medium of instruction because it quickly enlists the interest of the learning group, it presents materials in unified sequences, and it decreases the number of verbal transfers the pupil must make in

(1) ARNPIGER V. C. *Measuring the effectiveness of sound pictures as teaching aids*. New York Teachers College, Columbia University, 1933.

(2) KNOWLTON DANIEL C. and TILTON J. WARREN. *Motion pictures in history teaching*. New Haven, Connecticut, Yale University Press, 1929.

order to acquire definite concepts. In other words, the film can prove a cross-section of reality which otherwise is beyond the perception of the average learner because of the limitations of his normal unaided senses.

Results of experimentation indicate that much time can be saved by presenting materials through the use of films. This may have a very definite effect upon the curriculum of the future. Much curriculum construction has been carried on without any definite realization of the limitations of reading. It is well known that reading ability varies greatly among class groups, however homogeneous these may be in other respects. At the present time it seems possible to present, by means of films, many concepts in the first three years of a child's school life which at present are held off until the junior and senior high school. The assumption has been that these concepts are too complex to be presented any earlier in school, when as a matter of fact it is not because they are complex, but because there is a dearth of materials out of which these concepts grow. Thus, the film holds out to those responsible for the construction of curricula a unique challenge.

It is interesting to note that there have been general changes in class size during the past one hundred and fifty years, even though much progress has been made in the construction of textbooks, in improving methods of teaching, and in the production of aids to teaching such as the microscope, the telescope, the phonograph, the microphone, the radio, and silent and sound films. During the past year, experimentation has indicated that certain things can be presented effectively in large auditorium groups, leaving more time for personalized attention of the teachers to individual pupils and small groups. The film will not supplant the teacher, but will enable her to have more powerful means of accomplishing instruction.

f) The Efficacy of the Intervention of the State. It is obvious that the active assistance of the State would speed up materially the general use of all types of teaching aids. In European countries where the government sponsors the program of visual instruction, all schools have the advantage of the enlarged acquaintance with information pertaining to world events, scientific developments, social problems, and vocational problems through the use of carefully developed films. Not only does the State provide films for use in schools, but also it provides opportunities for the education of adults. Probably one of the most important problems facing workers in visual education is to determine means whereby the State can be made aware of the vast responsibility resting upon it to make provision for the use of films in all schools within its domain. As soon as visual instruction is sponsored by the State, we can rest assured that we shall have a much better educated populace.

10. — GENERAL CONCLUSION

a) The Theatrical Motion Picture has become a powerful Force in National Life. The theatrical motion picture is primarily an agency for amusement in the United States and plays a large role in the recreation of the American people. From a humble beginning early in the present century, the theatrical film industry has grown until it is now a billion dollar concern. In 1930, 500 feature films with about 200 prints each were made in the United States. From the time the story is written or selected through the various stage of its production the choice of cast, setting, directing, photography sound recording, editing, and so forth, the production is carried out with the highest degree of skill procurable and aided by the finest technical resources that science has produced. No expense is spared to insure

that every detail meets the high standard of art and technical excellence that is set up for the picture. Practically every feature picture represents an outlay of a quarter of a million dollars, and some of them actually reach the million dollar mark.

It is generally recognized that the theatrical motion picture is exerting a powerful educational influence both for good and bad. Therefore, a number of organized groups are working to improve motion pictures at the production point and to raise the standards of taste for motion pictures. One of the most constructive moves in the latter direction is the experimental project in teaching motion picture appreciation in high schools as it is being done by the Photoplay Appreciation Committee of the National Council of Teachers of English and the National Committee on the Teaching of Motion Picture Appreciation. In general, churches and social work organizations are very restive under the present moral quality of American films and increasingly are exerting their influence for cleaner and better films.

Educators have a responsibility to guide, in so far as they can, and work with the motion picture industry in such a way that false conceptions and improper situations may not be accepted through countless reiterations to the entire cross-section of the population. The attendance of large numbers of children at motion pictures has been under scrutiny by various groups. Children are apparently receiving a considerable amount of their education thereby, particularly in human relations, and more specifically in courtship and marriage.

were in the service of industry, religion, recreation, and education. More than thirty-five reliable commercial companies produce non-theatrical films, and nearly two hundred companies distribute them. Several universities, city school systems, associations, museums and departments of the Government distribute non-theatrical films.

The educational uses of non-theatrical films fall in two categories — informal, educational or cultural uses and systematic instructional or teaching uses. The film in the service of health, Government, vocations, and international understanding falls mainly in the former category; and the use of the film in classroom instruction and by scientific societies falls in the latter category.

c) The Instructional Use of Motion Pictures is quite limited. Less than 10% of the public schools of the nation make systematic use of the motion picture for instruction at the present time, but a number of hopeful signs indicate the probability of more extensive use in the near future. Among these encouraging signs are: (1) the American press is giving increasing attention to instructional films; (2) elaborate research studies in motion pictures as aids to learning have been made; (3) better instructional films are being prepared for schools; (4) teacher training institutions are offering an increasing number of courses in visual education; (5) school districts are increasingly inaugurating departments of visual instruction.

b) Non-theatrical uses of Motion Pictures are varied. In 1931 there were 350,000 non-theatrical projectors with an estimated value of 170,000,000 in the United States. These projectors were owned by schools, voluntary and scientific organizations, commercial companies, and individuals. Their major fields of usefulness

d) A strong National Films Institute is needed in the United States. In comparison with the theatrical motion picture, the non-theatrical picture in the past usually lacked technical excellence, is used comparatively little, and with varying regularity. Many agencies have pioneered in the development of the educational

film, but the result in the United States today is chaotic and disorganized. The principal reasons for this condition seem to be the past policy of the Federal Government to leave to private industry and voluntary endeavor many activities that the typical European government would assume, and the educational system of the country which is not centralized in the Federal Government, but, in main, is left to each of the forty-eight States. Private industry is dead-locked over the fact that producers cannot afford to make films until a sufficient number of projectors are sold to make the work profitable, and the projector concerns cannot sell their apparatus because there is no comprehensive library of suitable films available for their use.

Commendable efforts are being made in

many places to overcome these difficulties but there is a great need for a national film institute (1) to assemble, edit, classify, publicize, and catalogue non-theatrical film material, and to set up a convenient and economical distribution system; and (2) to produce and stimulate the production and effective utilization of educational films. An entire nation seeks enlightenment — courage to look forward and inspiration to work for the new social order wherein every human being would have the chance to enjoy living and working. The education of tomorrow should give a new appreciation of leisure and its usefulness and a new sense of citizenship and cooperation. The vast potentialities of the use of motion pictures in the nation's education are only beginning to be generally recognized.

THE BRITISH FILM INSTITUTE

SUBMITTED in connection with the sub-joined memorandum is "The Film in National Life", the Report compiled by the Commission on Educational and Cultural Films and published in June 1932 after a period of two years' investigation into the educational possibilities of the cinema. It was as a result of the chief recommendation of that Report that the British Film Institute has been established.

ESTABLISHMENT OF COMMISSION. — The Commission on Educational and Cultural Films was established in November 1929 by the unanimous vote of a conference of some one hundred educational and scientific bodies who recognised the film as a powerful instrument for good or for evil in national life. The Conference was aware that other countries were alive to the potentialities of the cinema in the field of education and culture, and that they were considering the film apart from its purely entertainment value, while in England there had been no concerted attempt on the part of a representative body to consider the matter on this basis.

OBJECTS OF THE COMMISSION. — The Commission was therefore set up to undertake the following work :

(a) to consider suggestions for improving and extending the use of films (motion pictures and similar visual and auditory devices) for educational and cultural purposes including documentary records.

(b) to consider methods for raising the standard of public appreciation of films.

(c) to consider the desirability and practicability of establishing a permanent central organisation with general objects as above and among its particular functions advice on the production, selection and use of films.

GOVERNMENT DEPARTMENTS. — The following Government Departments were represented upon the Commission :

Board of Education.

Colonial Office.

Scottish Education Office.

Ministry of Agriculture and Fisheries.

War Office.

RESEARCH COMMITTEES. — Five Research Committees were set up to survey the proposed field of work :

Adult Education.

Children and Adolescents.

Film Production and Technique ; Distribution & Circulation.

Foreign Relations and Documentary Films.

Science, Medicine and Public Health.

REPORT OF COMMISSION. — After two and a half years' work the Commission embodied its findings and recommendations in the Report "The Film in National Life" which was most favourably received in all quarters. On June 9th 1932, the Prime Minister received a deputation from the Commission, accepting a copy of the Report and expressing great interest in the work. The connecting line of the Commissions Report was the need for the establishment of a central co-ordinating body which would bring together all branches of film work.

FINANCE FOR CENTRAL ORGANISATION. — The Commission was aware, before the publication of the Report that strenuously as it advocated the necessity for the establishment of a Central Organisation, it could not legitimately expect that Government monies would be available for such a purpose. It did, however, seem permissible to anticipate that some percentage of the monies received from the Sunday opening of cinemas, which was in any case to be diverted from normal trade profits might be allocated to such a central organisation.

The Commission sought and gained support amongst M. P. 's of all parties and was successful in securing the new clause to the Sunday Entertainments Act which would provide a Cinematograph Fund to be used "for the development of the film as a means of entertainment and instruction".

NEGOTIATIONS WITH MEMBERS OF THE CINEMA INDUSTRY. — From the beginning of its work the Commission was in constant touch with members of the cinema industry, and had amongst its number two representatives of the Film Group of the Federation of British Industries. After the publication of the Report more formal meetings were held with representatives of all branches of the industry. These negotiations between the film trade and the commission were brought to a successful conclusion — and incidentally have gone far in themselves towards establishing mutual confidence between commercial and cultural interests in the film.

From the educational side, safeguards were agreed upon which have had the effect of steering the Institute clear of any temptation to meddle with the film censorship or interfere in matters of purely trade interest. From the trade side has come an increasing understanding of the possibilities which lie before a Film Institute conducted on enterprising but businesslike lines.

ESTABLISHMENT. — On September 25th 1933 the Board of Trade granted to the

British Film Institute, licence to be registered under the Companies Act as an Association limited by guarantee and not having a share capital.

The British Film Institute was therefore formally established in October 1933. The Board of Governors has been so constituted as to give equal representation to the public interest, the cinema industry (in its three branches of producers, renters and exhibitors) and educational and cultural interests.

GOVERNORS. — Chairman: His Grace the Duke of Sutherland, K. T. Representing the public interest are Colonel John Buchan, C. H., M. P., J. J. Lawson, M. P., and Lady Levita.

Representing the cinema industry are F. W. Baker of the Kinematograph Renters' Association, T. Ormiston, C. B. E., M. P., of the C. E. A. and C. M. Woolf of the Federation of British Industries (Film Group).

Representing the educational and cultural interests are A. C. Cameron, M. C., M. A., Secretary of Education for the City of Oxford, Sir Charles Cleland, K. B. E., M. V. O., Sub-Governor of the Glasgow Education Committee and R. S. Lambert, M. A., British Institute of Adult Education, and Editor of "The Listener".

OFFICERS. — J. W. Brown, late Secretary of the British Institute of Adult Education and Joint Honorary Secretary of the Commission on Educational and Cultural Films was appointed General Manager, and R. V. Crow, a past President of the Cinematograph Exhibitors' Association Secretary.

PROGRAMME OF WORK. — The British Film Institute exists generally "to encourage the use and development of the cinema as a means of entertainment and instruction" More specifically, its objects are :

(1) to act as a clearing house for information on all matters affecting films at home and abroad, particularly as regards education and general culture ;

(2) to influence public opinion to appreciate the value of films as entertainment and instruction ;

(3) to advise educational institutions and other organisations and persons on films and apparatus ;

(4) to link up the film trade and the cultural and educational interests of the country ;

(5) to encourage research into the various uses of the film ;

(6) to establish a national repository of films of permanent value ;

(7) to provide a descriptive and critical catalogue of films of educational and cultural value ;

(8) to advise Government Departments concerned with films ;

(9) to certify films as educational, cultural or scientific ;

(10) to undertake similar duties in relation to the Empire.

MEMBERSHIP. — The Institute is working to build up a strong body of public opinion, and to secure the support and co-operation of individuals and organisations interested in the film. It has framed a membership scheme as follows : — Individuals pay an annual subscription of L 1.1.0d., Corporate Bodies, L 5.5.0d. Membership secures free copies of all publications including the quarterly magazine, monthly bulletin of educational, instructional, and entertainment films, reports on progress, news bulletin etc., and the right to vote at annual and other general meetings of the Institute.

INFORMATION. — The British Film Institute believes that one of its most important functions is to provide information on every side of the film movement. Teachers especially have been handicapped by lack of knowledge as to the suitable films on the market and the practicability of installing apparatus. The Institute is bringing the teaching and trade sides into touch with one another, so that they may know each other's needs and opinions. In constituting itself

a channel of information in this way, the Institute is benefiting both the industry and education.

The need for this information department is clearly proved by the large number of enquiries which reach the Institute daily covering a wide variety of subjects. The Institute is dealing with these queries as they arrive, and in order to make its records complete and comprehensive material from all sources is being collected with reference to apparatus and films of every kind, educational needs, planned investigations, enquiries and experiments conducted under the auspices of local Education Authorities and other educational bodies.

TECHNICAL. — An important question is receiving attention by the Technical Committee of the Institute. At present there exists a large variety of sub-standard machines, and the potential purchaser is at a loss when making a choice.

The Technical Committee is therefore examining all types with a view to reporting and submitting definite recommendations.

ADVISORY COUNCIL AND PANELS. — In order to secure the widest possible contacts the Governors of the Film Institute have constituted an Advisory Council of representatives of all the main interests (technical, commercial, educational, social, scientific, literary and artistic) concerned with the development of the film. The first meeting of this Advisory Council took place in February when Colonel John Buchan, C. H., M. P., took the chair, and gave some indication of the work before the members of the Council.

Panels are being created from the membership of the Council to advise on special subjects. The following are already at work or in active process of formation.

Education Panel which will concern itself with the viewing and approving of films specially produced for educational purposes ; the obtaining of services of recognised experts to assist in the produc-

tion of educational films, the obtaining of opinions from experimentors in the use of the cinematograph in the various educational spheres; it will determine the respective values of "silent" and "sound" films for the classroom; appoint committees to deal with Science (Biology, Physics, Mathematics) History, Art, Language and Literature.

Entertainment Panel which will deal with the following; a special film for children; obtaining of opinions from the public as to the types of film required and the setting up of the machinery whereby this would become available to producers; the question of giving approval to films which portray national characteristics.

International Relations Panel to establish machinery whereby films showing national characteristics can be freely circulated between Great Britain and other countries, to arrange for the exchange of opinion regarding films of entertainment and educational value.

Dominions and Colonies Panel to consider the use and development of the film as a means of entertainment and education in all questions relative to the Dominions and Colonies.

Social Service Panel which will view and approve films of value for social welfare and allied purposes, render assistance to organisations and others wishing to produce such films; establish machinery whereby the film can be brought into service in all social institutions.

Medical Panel which is concerning itself with all questions relating to medical films; collecting information as to what films of this kind are in existence, advising as to the production of further medical films, and collaborating in the compilation of a cine-medical encyclopaedia under the auspices of the International Institute of Educational Cinematography.

Scientific Research Panel which will discuss means whereby films can be used for the advancement of science, arrange for the services of experts in their various

spheres to be available for producers, frame schedules of subjects and appoint the appropriate committees.

Library Service Panel to consider to what extent the film can encourage reading; in this connection to consider the possibility of collaborating with Librarians in experiments on the lines of that conducted by Marylebone Public Library, and to collate the results of investigations with a view to publishing reports and carrying out recommendations.

Amateur Cinematography Panel which will discuss the possible collaboration of amateurs in production, establish machinery whereby films already made may be utilised; explore the possibilities of embodying the services of amateurs in connection with the making of scientific and other films, requiring protracted camera work.

Production and Planning Panel which will co-ordinate the whole field, making contact with all firms producing documentary, educational and instructional films, and by acting as a central consultative body ensure that duplication of production does not occur.

NEW EDUCATIONAL FILMS. — At the request of one of the largest British producing firms, the Institute has nominated experts to advise the company upon the production of a series of educational films for the classroom. In this way the Institute will ensure that the films will be suitable for the purpose in mind. The series includes Botanical, Language and Literary films. Discussions are taking place with reference to the production of films showing the geographical backgrounds of Shakespeare, Wordsworth, Hardy, and Kipling, a Mathematics film and a series of films on physical education which will interpret the new Board of Education syllabus of Physical Education for schools to teachers who are required to teach the syllabus. It will be seen in this way how the Institute is linking up the trade and educational interests to their mutual benefit.

PUBLICATIONS OF THE BRITISH FILM INSTITUTE. — The publications of the Institute are issued free of charge to its members.

Sight and Sound is the official organ of the British Film Institute. It contains articles on every aspect of the film movement, reviews of current films and records and general information on developments.

Monthly Bulletin. A large number of 'interest' or background films exists, and in order that the films and information concerning them shall be more easily obtainable by teachers and others who want to use them in their work, the Institute is issuing a Bulletin which appears monthly, and which is forming the basis for a comprehensive catalogue of educational and instructional films.

In order that the Bulletin shall be authoritative, arrangements are made for panels of viewers who are expert in their own particular subjects to examine the films and report. Their annotations and criticisms should prove of the greatest value to teachers, who cannot, of course, judge from the title alone the content of the film or estimate its possible use to themselves.

NEWS LETTER. The Institute also issues a monthly News Letter which contains notes of developments abroad as well as in this country. In this way it is hoped to link up the various movements in cinematography abroad with the work of the Institute and its associated bodies. The News Letter will be circulated to members and branches who will be invited to send in to headquarters all items of local news which would be of general interest. Thus this News Letter will not only make it possible to maintain contact with other countries, but will provide a channel of information which will enable the various parts of the movement in this country to keep in touch with one another, and to understand the general trend of development.

VIEWING OF ENTERTAINMENT FILMS. — The Institute includes in its bulletin notes

on entertainment as well as educational films. These are viewed by a voluntary panel of interested film goers who in effect make their views of films likely to be of general interest known to their fellow members. The Institute is here aiming at supplying to its members and branches information which will lead them to take a more informed interest in the cinema, and in their turn to give expression to their own views.

FILM INSTITUTE SOCIETIES AND BRANCHES. — Even before the establishment of the Film Institute, interest in different parts of the country was considerable and bodies known as "Film Institute Societies" were set up. The first of these to be established was that known as the Merseyside Film Institute Society, and the main features of the scheme which are also being adopted by the other Societies are as follows :

(1) A wide combination of all types of interest which are likely to bring together a large group of people interested from different angles in the serious possibilities of the film.

(2) The largest possible membership based on a small subscription of 2/6 per year, entitling the members to receive information and enjoy certain other privileges.

(3) The establishment of immediate contact and development of friendly relations between the Society and the local film trade.

These Societies are formed on a fully representative basis.

Meetings and Conference to consider the possibility of forming branches are frequently held in different parts of the country, and a special pamphlet has been printed to suggest to interested groups the lines to follow in establishing such branches, and to indicate the work which they can undertake in order to forward the general objects of the Institute.

INTERNATIONAL CONTACTS. — The Institute is co-operating with the International Institute of Educational Cinematograph in Rome which is the institution charged by the League of Nations with the duty of studying and exploring the educational possibilities of the cinema. Mr. J. W. Brown, the General Manager of the Film Institute is a Governor of the Rome institute and a member of its Executive Committee. The British Film Institute and International Institute are working in collaboration in connection with the following conferences and exhibitions:

International Congress of Educational and Instructional Cinematograph, Rome. At the request of the International Institute and with the approval of the Board of Education invitations to educational associations in this country to participate in the congress were conveyed through the British Film Institute. The programme of the Conference was divided into three sections relating to Visual Education, Adult Education and International Life.

International Exhibition of Educational Cinematography, London. In conjunction with the International Institute of Educational Cinematography, arrangements were made for this exhibition to take place in London on May 9th in association with the British Film Institute's inaugural dinner. The finest examples of the film used as an instrument of education were collected from various countries, and this exhibition was the first of a series to be organised in the capitals of Europe.

Second International Exhibition of Cinematograph Art. The films to be presented must be theatrical (Drama, Comedy etc.,) and their production as much as the subject they treat must be the best possible expression of art (scenic and aesthetic) of the nation which has produced them. America, France, Germany, Austria, Holland Sweden, Italy, Japan, U. S. S. R. are taking part and British firms have been approached through the British Film Institute and this country will be represented by

London Film Productions which are entering "The Private Life of Don Juan" and by Gaumont British with their film "Man of Aran".

CONVENTION FOR FACILITATING THE INTERNATIONAL CIRCULATION OF EDUCATIONAL FILMS. — The British Film Institute is also actively interested in the recently held Conference of the League of Nations which recommended the abolition of import duties charged on films of an international educational character. The International Institute will decide as to whether the films submitted to it under the terms of the Convention are of an international educational character, but it will be the sole right of the competent body in the countries concerned to judge whether they are educational from the national standpoint. The British Film Institute is the appropriate body in Great Britain to undertake this task.

TASKS BEFORE THE BRITISH FILM INSTITUTE. — The British Film Institute has been in existence scarcely six months, but it has made a good beginning upon the work which it set itself. It is building up an information service, it is providing criticism upon current films of cultural and educational value by the publication of bulletin where such films are reviewed, and upon the basis of this it will compile a permanent critical catalogue. In addition it is giving attention to the formation of a Film Library or Repository to preserve current films of value from the risk of passing out of circulation.

Much remains for the Institute to do. When it turns to the work of directly promoting the cultural and educational influence of the film, the Institute will find itself faced with claims from many quarters. The part that the film can play in religion is one; the adaptation, for educational use, of industrial films, which though made primarily for advertisement, are often

highly instructional as well, is another ; a third is the encouragement of education authorities, schools and educational associations, to consider the film seriously as a medium of teaching. The Institute will probably also take up the question of the use of films for recreational and educational

purposes at centres for the welfare of the unemployed.

In these ways, the British Film Institute is endeavouring to achieve its general purpose of increasing the appreciation of the film " as a means of entertainment and instruction ".

THE "L.U.C.E." NATIONAL INSTITUTE

Beginnings. THE value of the cinema, both in its artistic aspects and for its specific capacity as a powerful means of propaganda and an agent of cultural ideas and instruction of the people was appreciated in the very first years of the Fascist regime. The latter, with its programme of national renovation, was anxious to make use of all means that were available to it to illustrate the work of reconstruction it was engaged on, preparing the young generations for the tasks awaiting them in the development of national life.

The earliest origin of the L. U. C. E. was a *Sindacato Istruzione Cinematografia* (S. I. C.) the objects of which were to produce and distribute didactic films. A few months after the constitution of this syndicate — to be precise in September 1924 — *L'Unione Cinematografica Educativa* (The first letters make the word LUCE) was created. It was formed as a limited liability company, the capital of which was subscribed by various semi-governmental bodies including the *General Commissariat for Emigration*, the *National Bank of Social Assurance*, the *National Insurance Institute*, the *War Veterans Association* and the *Bank for Workmen's Accident Insurances*. The President of the new association or, strictly speaking, company was Senator De Michelis; Vice-President Marquis Paulucci de Calboli Barone and Dr. Luciano de Feo acting respectively as Vice-President and Director or General Manager.

In this way, the first educational cinematographic organization under the direct control of the State was founded.

On July 14, 1925, the Head of the government, having taken cognizance of the results which had been arrived at during the initial

period of the LUCE's activity, wrote a letter to the ministers of Public Instruction, National Economy, the Colonies and the Interior instructing them officially to use the LUCE films for purposes of education, instruction and propaganda. The ministry of Public Instruction was especially invited to go into the question fully with the object of fixing a proper scheme for the introduction of the film into the middle schools, while the federations, syndicate and communal film repositories being in a position to handle the question of using the motion picture as an auxiliary in the primary schools.

On October 7, 1925, the Head of the Government communicated to the various ministries his decision to accentuate the character of the LUCE as an institution of public importance rather than as a company with limited liability. The same month the cabinet approved a measure and a decree thereon was issued on November 5 1925, whereby the National LUCE Institute was recognized as a body for the preparation and distribution of educational and cultural films.

Juridical Position. The institution has thus a character differentiating it from all other similar organizations in the world. This depends on two principal facts. The LUCE is not a private organization with ordinary business aims. It is a public body having a moral purpose. It is also a technical organ of the State and of all institutions controlled by the State for the spread of culture by means of the motion picture.

The scope of the LUCE's work and the circulation of its first films (we may mention especially *The Wheat Battle* and *Forests, Sources of Wealth*, which from 1925 onwards

were shown in popular cinemas in the chief cities of Italy and abroad) drew the attention of the industrial class. Thus, owing to the initiative of the Federation of Cinema Owners and Exhibitors a resolution was unanimously approved on March 27, 1926 to the effect that the projections of the LUCE films should be made obligatory in all movie halls open to the public in Italy. The Head of the government, who was in complete accord with the terms of the resolution, placed the proposal before a cabinet meeting. The suggestion was approved, and a decree authorizing the proposal was issued on April 3 1926 (N° 1000), and afterwards converted into a law on June 16, 1926. This law, recognizing the urgent and absolute necessity of carrying on a constant and intensive programme of civil and national education by means of public film projections of a varied cultural character in the public cinemas, ordered that such projections should henceforward become obligatory on all Italian exhibitors in all the cinemas in the country.

The internal constitution of the LUCE had to be altered by increasing some of the powers and authority of the directive council. A Superior Council was established by Royal Decree on December 24, 1926 (N° 2210) and its powers, attributes and constitution were defined. Other decrees followed defining the functions of certain specialized film repositories in the various departments of cultural and educational film production. The film repositories established were the following: National Agricultural Film Repository (Decree of March 18, 1926); Industrial Film Repository Law of August 6, 1926); Art and Religious Instruction Film Repository (Law of September 21, 1926); National Culture Film Repository (Decree of December 26, 1926); Military Film Repository (Decree of January 30, 1927), Tourist and Maritime Film Repository (Decree of January 30, 1927); Social Providence and Hygiene Film Repository (Decree of January 30, 1927); Film Repository for Foreign and

Colonial Propaganda (Decree of June 2, 1927).

The practical working of the Institute, and particularly the coming of the sound film which introduced new possibilities for the cinema and revolutionized its working, made a revision of the decree of foundation of December 24, 1926, necessary. A new legislative measure of January 24, 1929, modified by a decree of June 29, 1933 gave authority to the LUCE to use the sound and talking film. The idea of the unique character of the LUCE Institute as a technical cinema organ of the State was reaffirmed, and the obligation on all state or semi-state bodies to apply to the LUCE for photos or films was insisted upon.

The present board of directors or administrative council, of which the Marquis Paulucci de Calboli Barone is President or Chairman is composed of official representatives — nominated by royal decree — of the National Insurance Institute, the Fascist Institute for Social Thrift, the National Fascist Party the Ministry of the Interior, the Ex-Soldiers Association and the Fascist National Institute for Workmen's Accident Insurance.

Administrative Working.

In accordance with the legislative measures already referred to, the object of the LUCE is to encourage (see art 2 of the decree of January 24, 1929) "the spread of popular culture and general instruction by means of cinema projections or photographic reproductions commercially distributed for the purpose of national propaganda in Italy and abroad and also through the talking and synchronized cinema.

"To this end, the Institute will see to the production, publishing and distribution of films and photographs, both of its own and other firms' manufacture having a didactic, educational, artistic, cultural scientific, character, and also films of a social, economic, hygienic, agrarian, professional or national nature, or in fact any films or photos tending to the instruction or general cultural improvement of the masses. The

Institute must also engage in coordinating the various activities of a public character concerning the educational or propaganda cinema".

In conformity with the policy and plans before mentioned, and in order to carry into effect the principle of making the LUCE the technical organ of the ministries, the Fascist Party and all dependent organizations and bodies, all the institutions which for the purposes of their creation or in the general interest of culture and historical documentation or for works of a national or Fascist character intend to make use of the motion picture and photographs must entrust the LUCE with their work, entering into special conventions with the latter on the matter of details (Art. 3).

The capital of the Institute consists of the foundation capital of Lire 2,500,000 subscribed by the founder bodies and associations, and of possible contributions or legacies from the State or public or private bodies or from profits.

The income of the Institute is to be derived from the sale or renting of films, photographs and apparatus, from contributions agreed upon with various state administrations through the before mentioned special conventions for the making and distribution of films and photographs, from contributions obtained from public and private bodies for the making and distribution of films and photographs likely to interest them, from the profits deriving from the law establishing obligation on public cinemas to use LUCE films projections and from other sources. The officers of the Institute are the President, who is nominated by royal decree, on a proposal made by the Premier, the Council of Administration also nominated by royal decree on the proposal of the Premier, the Director General who is nominated by the President and the body of accountants. (Arts 7 and 9 of the Decree of June 29, 1933, N° 746).

In view of the direct dependence of the LUCE Institute and of the film repositories

connected with it on the Head of the Government, the latter must approve the annual programme of work, production and distribution of films. Such programme must be presented in December of every year for the forthcoming year. Similarly presentation must be made to the Head of the Government of all drafts of conventions or accords with foreign countries for the exchange of films or for the expansion of the LUCE, as also the annual balance sheet and the annual administrative report.

The functions of the Council of Administration (Art 11) are to see to :

(a) the appointment of the Director General and to fix his emoluments and retribution ;

(b) the formation of the general regulations affecting the staff and their salaries, wages and economic treatment generally ;

(c) the establishment of an office working system ;

(d) the laying down of regulations to govern the spending of funds ;

(e) the workings of the various film repositories ;

(f) the formation of a series of regulations for the various film repositories ;

(g) the creation of branch offices and agencies ;

(h) the presentation and approval of the balance sheet and the estimated expenses for the coming year.

The film repositories must also take it on themselves to see :

(a) that subjects considered useful and advisable be produced in films by the LUCE in the general interests of culture and for the purpose of fulfilling the objects of the Institute as lay down by various decrees ;

(b) to the establishment of a technical control over the production of films subtitles, copies of scenarios, etc.

(c) that all information or indications that may be useful for the diffusion of the LUCE's films are procured.

The following services depend on the office of the Director General :

(a) *Production and Development-Sec-*

tion to take charge of the LUCE's productive activity in the fields of cinematography and photography ;

(b) *Administrative Section* which is to take charge of contracts and see to their execution ; at the same time supervising the financial and administrative working of the various offices of the Institute ;

(c) *Commercial Section*, the task of which is to see to the placing of films and photographs in Italy and abroad by means of its agencies and branch offices, etc. ;

(d) *Accounting Section*. This is divided into three special offices. One deals with the business that comes into the hands of the Secretariat and private matters generally, the second office deals with the staff and legal questions and a third bureau handles the inspection services of the Institute.

Establishments. To begin with, the LUCE's activity did not require elaborate plant. Soon, however, the growth of the work and the demands put on the Institute and also the coming of the sound film rendered the building of another establishment necessary for the synchronization of silent pictures and direct sound film production.

The studio possesses a synchronization room with moveable two window cabin, a sound room with recording system, meant to work during the synchronization process, a noise room, synchronizing machines for sound on disc and all the requirements for an orchestra. This hall, fitted out with noise protection, contains in a limited space all the technical outfit necessary and is fed with a group of alternating electric dynamos which bring motor power for industrial use at 48 to 60 periods useful for operating the record. A disc repository is attached, stocked with all the musical and vocal material required for rapid synchronization.

In addition to the foregoing plant, the establishment possesses a big sound truck wired on the R. C. A. system which can also be adapted for studio use. There are two smaller R. C. A. sound trucks, a Mo-

viotone truck and a considerable number of silent film machines.

The establishment may therefore be considered as being not only equipped for the dubbing of foreign films, but also for making original sound pictures on new subjects.

A *scientific section*, connected with the establishment, contains the apparatus and plant required for making pictures of scientific interest. Films of the highest didactic order have issued from this studio. There are periodistic machines for making pictures in micro-cinematography, and for microscopic photographs as well as lamps for the illumination of infinitely small bodies, thermostats for maintaining at proper temperatures special cultures of bacilli or for bringing to development certain micro-organisms, lenses of every type and description, preparation tables and a host of other objects required in scientific work.

The LUCE establishment has also rooms for mounting and projecting while there is a photographic laboratory and photographic archive and a garage for the various sound trucks, lorries, motor-cars, etc., for the transport of staff and material as well as for special developing and printing ; travelling projectors and motorcycles used for rapid travel and country propaganda service, especially during the summer time.

The Institute's Activity.

The various activities of the LUCE Institute are divided among various services in both the cultural field and the news reports both foreign and home. The various services which make up the complete activity of the Institute may be enumerated as follows :

(1) The LUCE news-reel (*Giornale cinematografico LUCE*). — As has been mentioned, the service offered in public cinemas was started and put into effect by the law of April 3, 1926 (N° 1000). It was ordained that the LUCE films, which were to be used for a certain percentage of the entire length of the performances as a sort of supplementary programme were to be obtained from the head office of the LUCE or

one of its agencies or sub-agencies. The exhibitors were obliged to advertise the fact that they were showing LUCE films in their general advertising matter, while the competent police authority was not to grant any licence for exhibiting films unless it was satisfied that the exhibitor advertised on his programme the fact of his using LUCE films. Fines were also to be imposed for non-observance of the above regulations.

In this way, Italy put into force a new system of spreading cultural and educational films which was distinctly different from any plan in use among other nations, where films after having been declared by the competent bureau as being of recognized cultural and educational value enjoy special exemptions and fiscal advantages.

It was believed that while exemption from entertainment tax and state and municipal dues and taxes etc., might help the spread of cultural films up to a certain point, in view of the fact that exhibitors want to make all their show with their theatrical pictures, it was more advisable to make the projections of films of this character obligatory, with the idea of gradually educating the public taste without entering into any form of contrast or competition with ordinary spectacular films or with other systems.

In this way, the LUCE news-reel came into existence. It forms a rapid news service of all the most important home and foreign happenings. It is, in fact a regular illustrated news-sheet which requires the presence of operators engaged in a continuous service for the making of the pictures. It can give its "final edition" or "late news" just like any newspaper with the added advantage that it offers the visual appeal in 1200 metres of film of new events every week.

The news-reel or "newspaper" does not confine its pictures to happenings of the week, but also contains a section dedicated to didactic or scientific pictures and films on popular customs and traditions.

(2) *The LUCE Review*. — The Review differs from the news-reel just in the way that the review differs from the daily

paper. The latter is a rapid chronicle of events made synthetically and with speed; the other contains lengthier treatment of specific events.

While the news-reel is distributed to all the public cinemas, the *LUCE Review* goes exclusively to the *Sala Minerva*. It includes, besides the principal world events, which are reproduced in their complete version without cuts, cultural and scientific films which have a special interest; complete cinema reports of the activities of national bodies and institutions, films on the natural beauties of Italy and on folklore traditions.

(3) *Photographic Services*. — In 1927, at the suggestion of the Head of the Government photographic service of national events was begun with the idea of circulating pictures of national happenings. A little later, and to be precise in the year 1928, the LUCE Institute was entrusted with the work of making such a collection of photographs for a documentation of the beauties of the Italian country-side and Italian works of art.

Two sections thus came into being in the photographic department, the *Photo-news Service* and the *National Photographic Archive*.

The first service consists of a kind of photographic reporting which was carried out by the operators of the Institute. The prints are later distributed to the Italian and foreign press, to interested bodies and associations, and to private individuals. In this way, tens of thousands of copies of photographs are got rid of every year. The second section takes its existence from a convention which was signed in 1928 between the LUCE Institute and the Ministry of Public Instruction, whereby the material already existing in the photographic archive of the General Direction of Fine Arts was handed over to the LUCE for safe custody and distribution of copies.

The nucleus of these art photographs was formed by 35000 negatives, but the number of negatives in possession of the LUCE has increased steadily every year owing to the policy of the Institute, which has set itself

the task of making a complete documentation of the artistic life of the nation.

The distribution and sale of this material which in the matter of quality and quantity may be considered as unique takes place by means of sales, exchanges, catalogue editions and small illustrated volumes of the history of art in the various regions of Italy.

(4) *Publications.* — Among the various publications of the LUCE Institute, the following are worthy of notice :

(a) *Fascist Italy on the March*, published on the occasion of the tenth anniversary of the March on Rome, with a foreword by the Duce. The volume contains 256 pages and 516 photographs, and presents a regular picture of the political social and economic life of the country in all its aspects ;

(b) *Art for All*, a collection of monographs intended to illustrate fully the documentation made by the National Photographic Archive. It is divided by artists and schools of art, and each volume contains a biographical note on the chief masters or outstanding works of art contained in it. The collection has a high cultural quality, and contains 50 volumes at present ;

(c) in order to make use of the collection of negatives possessed by the Photographic Archive, a regional publication of Italian works of art has been started. The intention of the publishers is that when the publication is completed, it will form a general catalogue of Italian art. Volumes dealing with the Abruzzi, Molise and Apulia, the Marches, Tuscany, Umbria and two volumes on the museums art galleries and monuments of Rome have already been published ;

(d) Among minor publications, there is also a photographic documentation of the Conciliation (between Church and State in Italy) in six languages and catalogues of the films issued by the LUCE.

(5) *Projections Service.* — The projections service organized by the LUCE includes the travelling cinemas and the Planetarium.

With regard to the former, this service was started by the will of the Duce as far back as May 24, 1926. The service posses-

ses automobile projectors installed with apparatus enabling them to give projections anywhere and in any circumstances. These motor-cinemas have carried out a splendid work of social agricultural and hygienic propaganda in places where cinemas did not exist in the farthest off rural centres of the nation where the agricultural life develops most intensely.

In accord with the Ex-Soldiers Association, the travelling cinemas belonging to the latter association were handed over to the LUCE which for a time carried on the work of propaganda formerly pursued by the soldiers' Association.

All projections given by the travelling cinemas are commented by experts in the various branches of life, being illustrated often by travelling professors holding the chairs of various sciences. The projections have an exclusively popular character, and are intended especially to spread in the furthest off centres representative pictures of the nation's life.

Two auto-cinemas carry out projections of a gratuitous nature in squares of the city of Rome, in rural towns and in the scholastic centres of the region of Latium (including the province of Rome).

As regards the Planetarium, it was through the proposal of the Head of the Government that a planetarium was purchased from the firm of Zeiss in 1928. Its operation was entrusted to the LUCE as an association having an educational scope which made it the most suitable custodian and operator.

The instrument was installed in the Minerva Hall, which forms part of the ancient Baths of Diocletian. Here astronomical shows are given and through the LUCE *Review* also film spectacles. The popularization of astronomical knowledge followed here permits a reproduction of the movement of the stars and the reconstruction of celestial phenomena, thus giving the public a practical illustration of the fundamental astronomical laws.

All the projections of the Planetarium, which take place three times a week, are

accompanied by conferences. Other conferences connected with astronomical questions or on scientific subjects are also given in the Hall and are generally accompanied by lantern slide projections or motion pictures. Experts in the various subjects address the public.

During the winter of 1933-34, there took place in the Minerva Hall an elementary course of astronomy given by teachers of the Rome Observatory.

(6) *Production Service*. — The chief activity of the Institute and that for which it was in fact created concerns the production and distribution of films of a cultural didactic and scientific character. The output of the Institute in this connection is without parallel in Italy, while the LUCE's films occupy a high place in the world production of pictures of this nature.

The films produced deal with all branches of industry and agriculture whether scientific or cultural. The pictures are made under the directorship of first class experts of all nations. Some of the sections have produced films which could with difficulty have been surpassed by films made under the very best technical conditions possible.

All the usual forms of cinematography are used: ordinary picture-making, accelerated and slow motion camera work, X-ray cinematography, micro-cinematography, silent, sound and talking pictures, suitable for all programmes and kind of public.

We may mention among the various type of pictures produced and included in the Institute's general catalogue, the films on ocean abysses, on spiders, bees, ants, butterflies, mosquitos, plant and animal parasites, studies and cinema researches of a biological physical and scientific character, the cinema collection of Italian provinces and colonies and folk lore and traditional pictures.

Together with these pictures, there is another complete series dealing with public works, labour questions, agricultural work and popular propaganda films.

For the films in the first group, the LUCE

has enjoyed the advice and collaboration of scientists like Alessandri, Bastianelli, and Cirincione of the University of Rome, for the second type of picture; it has on its own initiative produced films such as "The Wheat Battle", "The Life of the Forest", "With Iron and Fire", which latter illustrate the working of steel from the moment of its extraction as iron ore in the mines to finished product.

Statistics. — A synthetic notion of the work carried out by the LUCE Institute in various departments not directly connected with production of cultural and scientific films may be gathered from the following figures:

LUCE news-reels (silent) produced up to	
Dec. 31, 1933.	1027
LUCE news-reels (talking) produced up to	
Dec. 31, 1933.	391

The total meterage of the negatives of the sound news-reels has reached the total of 119,024 metres.

Photo News Service. — Negative produced at December 31, 1933: 52146.

Astronomical shows given at the Planetarium: 73 with 4854 spectators in 1931; 26 shows with 3448 spectators in 1932; and 160 shows with 12409 spectators in 1933.

LUCE Review. — At the date of December 1933, 3075 shows had been given to 320,000 spectators.

The LUCE Institute, as an official organ of the Fascist National government may be considered as the first of its kind to be formed anywhere. Its cultural and educational activity carried out by means of the motion picture make it the best possible instrument for popular propaganda of national and international ideas and ideals. Like other institutes of the kind which have come into being or are coming into being in various parts of the world, it carries on its programme with the greatest confidence in the belief that the film, which has become a means of pure entertainment for the crowd today, may return to the ideal of its origin and become the incomparable teacher for the human mind and spirit.

THE ORGANIZATION OF THE EDUCATIONAL AND TEACHING CINEMA IN FRANCE

IN France, the desire to utilize the cinema in teaching followed very quickly after the invention of the motion picture camera. In fact, though even in the early days a number of fantastic pictures were made, almost as a proof of the versatility of the cinema, in the opinion of its inventors, the brothers Lumière, it was chiefly intended for scientific research, for popularizing science and for providing a documentation of various aspects of life.

In 1906, the principle of the scholastic utility of the film was definitely asserted. Among the pioneers in this work, we may recall the names of G. Michael Coissac, Edmond Benoit-Levy, whose nephew Jean Benoit-Levy has so brilliantly followed in his uncle's steps, Leopold Bellan, formerly President of the Paris Municipal Council Colette, Bruneau and others.

As far back as 1907, a primary school in Paris utilized the motion picture for illustrating lessons. In 1911, M. Brucker, teacher of natural history in the Hoche Lycée at Versailles used animated projections to improve his teaching. In 1913, several Parisian lycées imitated the example of the Versailles school, and both in the capital and in the provinces numerous schools established motion picture apparatus and the use of film teaching at their own expense. Most of the pictures were supplied by the firms of Pathé and Gaumont.

The teaching cinema had already made some considerable progress in France just before the outbreak of the World War. The general cataclysm which followed inevitably delayed the development of the teaching film, as it did for many other things. Even during the war, though, we can find

instances of legislators concerning themselves with the possibility of the film for teaching purposes. In November 1915, M. L. Breton laid before the Chamber a series of resolutions which urged the Minister of Public Instruction to nominate an extra-parliamentary commission to be entrusted with examining what were the best means for generalizing the use of the cinema in various branches of teaching. In 1916, the commission was duly nominated. It issued a report signed by M. A. Bresson, which was published only in 1920, but in the following year the educational and teaching cinema entered into a definitely organized phase.

The development later on proceeded particularly owing to the initiatives taken in the world of teachers, incited thereto by an official bureau, the State Pedagogic Museum.

The State Pedagogic Museum. This institution which dates back to 1879, had a distribution service in 1881 with free loans of books from its circulating library, a section of the Central Library of Public Instruction. Since the year 1896, it has also engaged in a loan service from its rich collection of slides belonging to the ministry and including some 500,000 examples. Consequently, when the Ministry of National Education decided in 1921 to form a service of motion pictures, the Museum was naturally chosen to see to the work of distribution. Forty years' experience and a continually increasing success guaranteed the proper organization of a film repository while it became possible to assure the best possible utilization for the film, together

with a sense of security for their safeguarding and preservation.

From 1921 to 1926, the Central Service of luminous projections of the Pedagogic Museum looked after the work of distributing the films which increased from 54 films lent in 1921 to more than 29,000 films in 1926.

This vast increase in loaning out pictures did not, however, satisfy the teachers' requirements in the various branches of learning. It was necessary to create a fresh system which should be better suited to the needs of the time, which should involve decentralization of distribution, and at the same time should multiply the centres of propaganda and cine-educational action. The Pedagogic Museum assumed this task admirably organized by its director Monsieur Lebrun, who is especially responsible for the Central Service of Luminous Projections.

Experience has shown that this system was the best possible since it allowed of the progressive and spontaneous development of an organization which, though faced with difficulties, was not in any way confused or chaotic. Moreover, the regional and departmental bureaux which form the framework of this organization tend continually to coordinate their efforts and to seek in a common programme the solution of the various problems of a pedagogic, technical, practical and economic nature which arise from the use of the motion picture in education and teaching.

Keeping to chronological order, however, and going back to the starting-point of the organization of cinema education in France, we must examine again the work done by the Pedagogic Museum.

Since 1925, on the request of this institution, the Ministry of National Education sent out a circular encouraging the creation of associations among cinema users, associations intended to act as regional or departmental repositories entrusted with the work of distributing locally the ministry's films lent temporarily, and to be renewed by

other films from the film library of the Central Service of Luminous Projections.

The Pedagogic Museum was soon encouraged to collaborate with these associations of film users, which were known by the name of *Bureaux of the Educational Cinema*. It also helped to establish them and assist in their development.

In 1932, the system was definitely decided upon by a circular dated August 10, inviting the Academic authorities to examine the best way of forming regional and departmental film repositories. As we shall see, the present situation shows that the heartiest reception was accorded to the suggestions of the ministry.

The Pedagogic Museum makes a proportionate division of the films of the Education Ministry, using as the criterion for such distribution the number of apparatuses in use in the schools served by each library or repository. The repositories must be restocked once or twice during the scholastic year. Their importance varies in proportion to the film resources of the cinema repository of the Pedagogic Museum. Today, the films available in this library reach the total of some 10,000 examples in normal 35 mm format, with non-inflammable supports, since the projection of inflammable films is now rigorously forbidden in public schools and in buildings connected with them.

The repository of the Central Film Library was formed by means of purchases made by the Pedagogic Museum on behalf of the Ministry of National Education. Since January 1933, when the first primary grade teaching picture accompanied by a brochure was presented, efforts have been directed towards making films which meet the requirements of the school and its supplementary institutions. It is well to note that there is a general tendency towards a wider use of explanatory leaflets or brochures.

Though organized for the specific purpose of running the film repository of the Ministry of National Education, the Pedagogic Museum places its services at the disposal

of other administrations and ministries such as the ministry of Agriculture and the ministries of Post and Telegraphs, National Defence and Physical Education. This year it has engaged in some experiments which go beyond the strict limits of the teaching film, publishing big documentary pictures like *La Croisière Noire*, *Calais*, etc.

Another recent initiative of the Pedagogic Museum consists in the creation of a numerous series of slides on 35 mm film, which permits the utilization of the films for cinema projection apparatus fitted with special devices.

The wide development of the services of the Pedagogic Museum has obliged this old and excellent institution to renew its organization and extend its work. In its new offices in the Rue Ulm, the Museum has been able to provide extensive and well fitted out premises for its projection services that are kept properly up to date. Besides the general business offices, there is a large stock of films kept in modern metal covers. Several rooms are reserved for cinematographic studies. The cabin of the handsome hall for projections and lectures is well worth noticing. This cabin, built and fitted out according to the personal ideas of Monsieur Lebrun, has a special electric feed equipment for light and energy and an installation of moveable canvass frames which permits any producer or manufacturer to show his films and machines under the best technical conditions possible. It would take too long to describe the new offices of the Pedagogic Museum in detail, or even that part reserved only to the Central Service of Luminous Projections. It will be enough to say that premises, installation and organization are worthy in every way of an institution which, while it succeeds in remaining youthful in spite of its age, has an important and prominent task for the spreading of the educational and teaching cinema in France, and can be considered both in this matter as well as in everything which refers to teaching in general as a

centre of studies and documentation of the first importance.

The Offices of the Educational Cinema. Today the Central Service of luminous projections of the Pedagogic Museum only serves five departments. Forty-seven other departments are served by twelve regional bureaux of the educational cinema, not including the bureau for Algiers, and the other 37 departments which have their own bureaux.

These bureaux, wherever they exist, operate under the control of the rectors or Academy inspectors as decentralized stores of the Pedagogic Museum.

Created by teachers who make use of the cinema in their work these bureaux are, from the juridical point of view, free associations created according to the regulations laid down in the fundamental law of 1901 on associations. They receive subsidies from the State, the departments and the communes, and collect other funds from the subscriptions due from their members.

They may be considered in a way as branch offices or bureaux of the Pedagogic Museum, and some of them carry out equivalent functions for the central film repositories of the ministry of Agriculture and the General Direction of Technical Instruction. The films entrusted by these public bodies to the regional and departmental bureaux can be divided for the year 1933-34 in the following fashion :

Pedagogic Museum	59 %
Agriculture	32 %
Technical Teaching	9 %

The bureaux possess a certain number of films of their own. In the majority of cases these are recreational pictures of normal 35 mm size and educational films in various reduced formats which meet the requirements of the various members. In addition to the 4050 normal 35 mm machines in use, there are also at least as many more reduced size projectors in the schools.

This question of the diversity of formats

has come to the attention of the bureaux, which have perceived in it a serious drawback to a wider diffusion in the use of the scholastic film. The question does not only concern the school and post-scholastic or perischolastic institutions, but affects in a general way all institutions, the object of which is to teach, instruct, educate and divert the people. It especially interests Workmen's Leisure Time associations with which organizations these bureaux ought to collaborate closely.

In the meanwhile, the bureaux have practically expressed their desire to cooperate among themselves by the constitution on October 25, 1933 of the French Union of Bureaux of the Lay Educational Cinema (UFOCEL) under the presidency of the ex-senator, Monsieur Brenier. This association is connected with the French Teaching League, a general confederation of lay works recognized as a body of public utility by the decree of May 31, 1930.

The organization of the educational cinema in France which began under the auspices of the Pedagogic Museum and was backed up by the individual and collective efforts of the teachers themselves has found its full development in the UFOCEL, as a section of the French Teaching League. Museum and League, are, we may say, like the two poles of this organization which is fully equipped with everything at present for introducing the educational and teaching cinema into the programme of official institutions except an adequate supply of films. While the films belonging to the Pedagogic Museum may be considered numerous, and the importance of (those in the film repositories of the Ministry of Agriculture and the General Direction of Technical Teaching may be admitted, neither these pictures, nor those in the film collections of the Public Health, National Defence, Marine or Colonial ministries and agencies can now meet the requirements of film users. Films which are purely didactic, documentary or recreational are in continual demand. The cinema bureau of Paris, for

instance, had to work wonders of speeding up in organizing the circulation of its 260 films in order to be able to meet requests for 11,903 loans from October 1932 to April 15 1933. Of these loans, 8795 were entirely gratuitous, while in 3108 instances a small fee was charged. The activity of the other bureaux was not greatly dissimilar.

All this is certainly due to the growing increase in the number of apparatuses in use; the state subsidizing their purchase through the ministries of Education and Agriculture, while the General Direction of Technical Teaching looks after the supply for the principal schools in its care. We may well ask what is the future going to be when, according to the forecast of the UFOCEL, we shall arrive at the use of one standardized format for educational films, which will greatly reduce cost of apparatus and stock.

We should remember that the National Committee *des Loisirs Ouvriers* (Workers Leisure Time Movement) tends constantly to make a wider and fuller use of the motion picture, while the French League for Cinema Education is ready to enter the field. This body was formed to supply the soldiers' barracks with cinema apparatus and educational and instructive films. Besides these organizations which are more or less connected with official bodies, we must remember the various religious organizations, among which many film users for teaching and education are to be found.

This sketch of the progress and spread of the educational cinema in France would be incomplete without a few brief words on the organ which represents these various associations and bodies at the International Institute of the Educational Cinema.

The French Committee This committee was **tee of the I.I.E.C.** the first correspondence bureau attached to the I. I. E. C. that was ever formed. Its task is to coordinate and centralize news items, and, when necessary, to canvas the opinions of national personalities and institutions on questions coming within the proper activity

of the Rome Institute. The committee reserves to itself all action in those cases which require a governmental or administrative intervention.

The Committee is composed of :

(a) the French members of the Council of Administration of the Rome Institute (Titular or honorary) ;

(b) the President of the French Syndical Chamber of Cinematography and of personalities known for their special competence in the scientific field or in that of propaganda, as well as of delegates of organizations which use the cinema as a means of social education ;

(c) experts in the different questions likely to come up for decision as well as personalities representing certain branches of the cinema industry ;

(d) representatives of the ministries of Foreign Affairs, National Education, Commerce and Agriculture and of the Undersecretaries of State for the ministry of Na-

tional Economy and the General Direction of Technical Teaching ; also representatives of the ministerial departments interested.

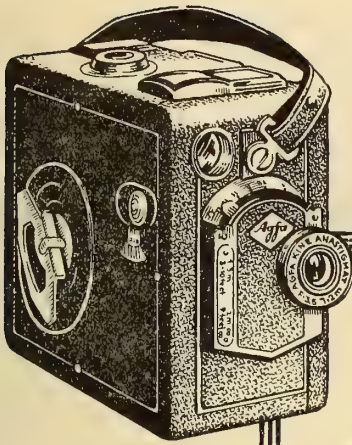
It may be stated that no question which interests the relations between the Rome Institute and France, or any question of international importance has passed without the French Committee collaborating therein with the I. I. E. C. Recently, there was the Rome Congress of the Educational and Teaching Film, at which the French committee intervened with a numerous and active delegation, which brought a series of interesting and valuable reports. It may be recalled that on this occasion that the French Committee in order to contribute to the documentary collections of the Institute, published a valuable volume of 300 pages containing the *French Catalogue of Educational Films*, which will be followed by a volume containing all the reports presented to the Congress by the French delegates or French sympathizers of the I. I. E. C.



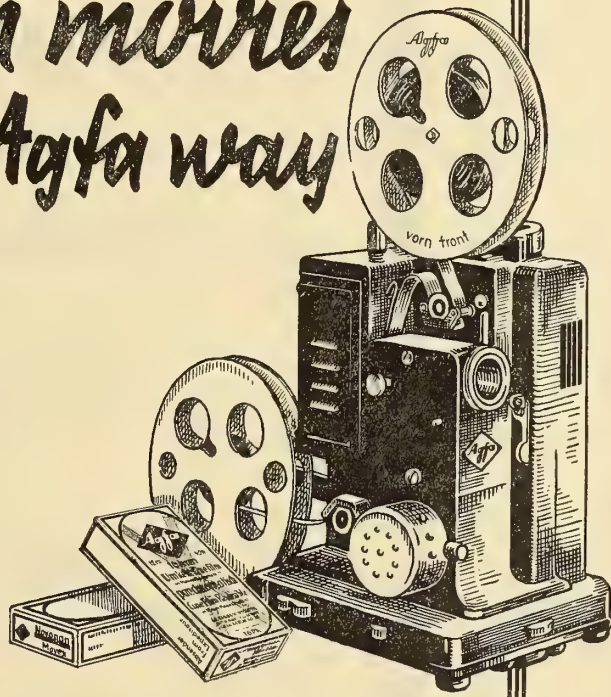
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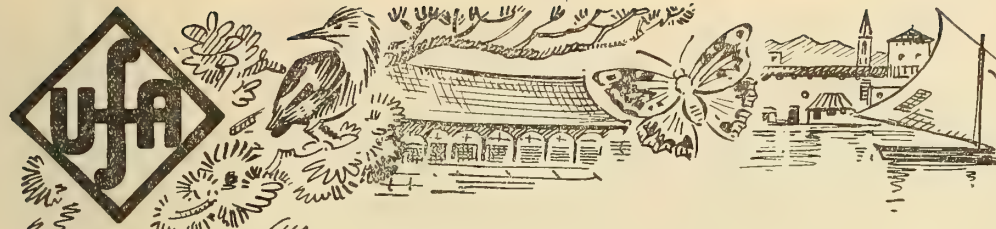


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From the Operetta by GEZA MERCEZ, KARL FARKAS and ROBERT KATSCHER.
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THE SEVENTH ART

BY

Henry de Jouvenel.

PICTURES are needed to instruct children, and so they are for men too. A Paris newspaper, through the simple discovery that at the end of a day's work people like to look at headings and photographs rather than read articles acquired in a few months a million spectators rather than readers.

The simplest and most delightful way to learn is doubtless to open our eyes, as they are in fact open during the day and, without troubling about recalling the past or invoking the present, to allow facts and men, inventions and voyages to make their impressions on the retina of our eyes. This is perhaps one of the motives which have made the motion picture one of the most fashionable mechanical means existing.

In an epoch like the present, where, after bread, the films is the object of widest consumption, the film which allows the lazy man to loll in a comfortable fauteuil and follow the travels of explorers, scientific research and all man's physical and cerebral work in fact, it is strange that we do not notice any improvement in the intellectual level of humanity. It is not the pupils who are lacking, nor the class-rooms. It would seem to be the teachers.

Nevertheless, there are any number of films producers and painters, without there being evident sign of a superabundance of masterpieces.

The fact is that the seventh art has barely begun to collect authors together and find its proper means of expression. A review of

the motion pictures of 20 years ago would perhaps permit us to follow the progress made during the last decennium.

Each new attempt, while it attracts the creators and men of fancy, opens a new avenue of fallacy to the deluded persons of our social life who carry into the new branch of activity the weaknesses which made them failures in other fields. Hierarchies are slowly formed through the mistakes of a public which has to find its own education, and can hide unjust defeats and flaunt false triumphs.

The public is sovereign. Authors, film producers, etc. have more interest in courting the public than in trying to form its taste. What is its taste? What fact can inform us of its taste? It is the novels or plays which enjoy a certain success? Adaptations of Wells or Edgar Wallace will prove less difficult than a vaudeville of Feydeau, but we must not forget that authors aim both high and low. In the end, there is the chance that merit will be recognized, and original work distinguished from a copy. Talent will out, and the new art of the film tends to come to the front in its own right, without having any longer to seek help from literature or the drama. It will form its own models.

This will prove to be the hour of the educational cinema.

To begin with, we have had to be satisfied with cutting out illustrations from textbooks and reproducing on the screen old ex-

periments in chemistry, etc., of illustrating, as some puerile pictures have done, the effects of disease and the advantages of hygiene. In this way instruction has not been made pleasant. All that has been done is to render the cinema tiresome.

Operators have today taken their cameras to all the five continents, bringing back documents of the greatest interest on human geography. Others have gone down into the depths of the sea to photograph its flora and fauna. Others again have descended into the lowest social depths in search of sensational facts and instances of physical and moral misery. Others again have faced the risks of the mountains or the sky, so that we have nowadays a magnificent wealth of facts and events from all parts of the world which allow us to know all countries, to distinguish physiognomies, and to feel the harmony of the world in our being. It will perhaps be possible before long to plan a luminous encyclopedia to take the place of those arid volumes of the past.

Such a work will require careful planning and method, much time and money, and a profound sense of international collaboration.

Cinematographic teaching cannot be modelled on other forms of instruction. In description, respect for the truth of history must be observed. If we take the case of a teacher who is explaining the persistence of the luminous impressions which go back to the origins of the invention of the cinema, his teaching will have to be prolix in order to be clear, and will consequently weary the pupils who listen to it.

A film, on the contrary, will render obvious to the least intelligent spectator the act of that Knight of d'Arcy, that gentleman of the XVIIIth century who describing the circle of a piece of incandescent coal swung around so that the fiery flame of the circle seemed continuous, was able to calculate within an eighth of a second the time dur-

ing which the pupil of the eye retains a luminous image. The films will be able to show the physicist Plateau, in the act of inventing his *phenakistiscope* with its moveable cardboard discs that reproduced the first animated drawings.

The motion picture could easily show us Hoorner with the cylindrical box of his *zoetrope*, or Jansen in 1874 while he was photographing the planet Venus at intervals of 70 seconds with the aid of his astronomical pistol, or Marey who accelerated movement with his photographic rifle and succeeded in fixing 12 images a second on the celluloid, or Edison who guessed the system of perforating celluloid, or finally the brothers Auguste and Louis Lumière who made the first cinema that worked and gave the first luminous projections on March 22, 1895.

Some hundreds of metres of films which join distraction with emotion will leave in the minds of the youngest a memory of a certain importance which will give a clearer explanation than a long series of oral lessons. This is merely one example among thousands.

To seek the best didactic methodology by means of the cinema, to make an inventory of educational films which are worth preserving, rejecting all those of evident mediocrity, to determine the scope of future films, to look for the teachers of tomorrow among the new generations brought up with the motion picture, to prepare a travelling encyclopedia may be the subject matter for congresses and congressists, but the assistance of the State is necessary if all this good work is not to be done in vain.

Teaching is a department of the State's activity, and it is only the State which can organize cinematographic teaching properly. Private initiative has only too often the same limits as private interest. If only on account of lack of means, private endeavour cannot undertake so vast a work as this,

the application of which we are considering.

It is not a question of seeking profit or applause, nor any of the satisfactions common to ordinary cinema production, even for those societies which have abolished capitalism.

In a report laid before the Plenary Assembly of the Union of Russian Art Workers in 1930, citizen Sutyurin lamented that neither the best authors nor the best actors concerned themselves with artistic films, even in the country which in 1918 received from Lenin the famous phrase of inspiration: «Of all the arts the most important for Russia is, in my opinion, the art of the cinema».

It is actually in Russia alone that the motion picture is capable of instructing the enormous mass of illiterate people. The spectators of films in Russia have increased, according to Bolshevik statistics, from

407 millions in 1928 to 2500 million in 1930.

If a state which is absolute master of its people and is urged on by an intense will for propaganda finds difficulty in getting together the apostles necessary for its propaganda of culture, what single individual, or what business firm or company can hope to do better?

In reality, the vastness of the task is almost beyond the capacity of any state, and really requires an association of states. This is a noble task, especially since we can only nationalize science by maintaining in the world contrasting forms of ignorance. Italy, which has founded the international Institute of the Educational Cinema, has shown the path that is to be followed. Other nations must support her without jealousy and with all the disinterestedness and impartiality which form the atmosphere of true science, such as can widen and make surer the vision of mankind.

LITERATURE AND MACHINES

BY

Ludovic Zilahy.

SOME years ago, when at the invitation of an American cinema firm I took possession of my workroom in one of the Hollywood studios, a servant entered and hung up on the wall in front of my desk an enormous map. On the map, which showed the five continents, the cities where cinemas existed were marked with a red circle, that is the cities which had cinemas that regularly showed the pictures made by the firm I was working with.

It was still the epoch of the silent film. The red circles pretty well covered the entire territory of the globe. The reddest patch of all was naturally America, which was covered with so many red spots that it looked like a bad case of cinema measles. Europe was fairly red too. In Asia, the rosy patches began to thin out somewhat until they practically disappeared in the vast plains of Siberia and China. By the sides of the rivers and in the bigger cities, they cropped up again, and some few red circles were to be seen even among the islands of the Indian Ocean. The situation in Africa and Australia was about the same, and there were evidences of red even in the North and South Polar regions.

The map also showed the number of cinema frequenters in the past few years which naturally reached several hundreds of millions.

The cinema firm has placed this map in the workrooms of all the scenario writers

with the evident intention that any of the writers when working and casually looking up from his desk would immediately see the map. He would thus be reminded that the words and thoughts he was putting to paper to be turned into ribbons of film would be shown all over the world illuminating public opinion.

The immeasurable vastness of this publicity, this world marked with red circles, this fantastic pulpit from which it is possible to speak to all humanity astounds a writer even though he is anxious to make his ideas known to his neighbours. It is a piece of knowledge which makes one giddy. It affected me so that I found it impossible to work while the big map was on the wall staring at me. So I took it down, and hid it in a cupboard so that I could escape the glare of its thousands of red patches, which seemed to reprove me and keep my brain under a sort of continual menace. A magic force seemed to exhale from those red circles. Even when the map was shut up in the cupboard, it seemed to cast off sparks and set up a disturbing atmosphere. I called the servant and begged him to take it away altogether and to hide it somewhere.

Even this did not help. A few months later, I was obliged to abandon Hollywood, and to return to Europe, to Hungary because I could not get the glimmer of an idea for writing. I might very well have been alarmed at this state of things, but

I succeeded in calming myself, for I was able to convince myself that in the neighbourhood of the big film producing houses there is not a living soul whose brain has not been turned into lemonade.

This can easily be explained. The larger the mass of people for whom a writer works, the lower must he come down from the pure lucid heights of literature. The poet who dreamed of addressing himself one day to all mankind has been badly served by the century of technical progress. Science has given him a magic instrument to address the millions, at the same time ordering him to obey the dictates of the most commonplace business intelligence.

I see in this the cultural tragedy of a humanity played out in the souls of the writers working around the electrical machinery of the big American cinema houses.

To attack the American motion picture business is being done by a great number of people every day at present. In my opinion, I do not think the task is especially suited to us Europeans, and I should like to quote the opinion hereon of the distinguished American professor Fred Eastmann:

« The American film », writes Eastmann in his study entitled, « The Next Move for better Movies » conceals a danger in two points. Inside the country, it has a poisonous effect on the minds of children, and abroad it does much damage to the good name of the spiritual level of the United States. The effect exercised on the minds of the children does not lie only in fact that the plots of the pictures are to a large extent based on sensual themes, but they also tend to cast contempt on the highest ideals of human life, since they exalt the instincts which hunger for money. Virtue is always rewarded with material things instead of moral benefits. The « happy » ending is always synonymous with ascent into a paradise of material well being. The run of

plots is generally around the way certain sets of imbecilles comport themselves before similar imbecilles. The American child becomes nervous and irascible. He is distracted from school work. He begins from quite a tender age to consider the marriage bond as a thing of slight importance, and his young mind has a consciousness of all the feelings of sin ».

This is what all the outstanding American psychologists state.

The most popular hero of the modern cinematographic epopee is the gangster armed with machine guns. During my stay at Hollywood, when Al Capone was still at liberty, a member of the firm with which I was working entered, with all seriousness, into negotiations with the big gangster for the playing of the principal part in one of our films. The affair was not concluded only because Al Capone, who knows all about where dollars are to be found, wanted a million of them as his fee.

According to Professor Eastmann, the luxury of Hollywood, its empty sensuality and its lack of moral sense give an absolutely false picture of American life, while the life of other nations is shown in a lying and offensive fashion. This latter characteristics of Hollywood, for instance, has come to point that in China, Italy, Spain and France the public demonstrations have often been made against American films, while in Turkey children under 16 have been forbidden to witness the films of Christian America.

Nevertheless Hollywood irradiates so powerful a light throughout the world that it has succeeded in exciting the destroyer of literature — Bernard Shaw. All the European writers invited to Hollywood — and among them, Maeterlinck, Pirandello and Reinhardt — entered the gates of Hollywood with the secret belief that they at any rate would show that it is possible to make a

really artistic film. We have in the film the divine play of light and sound. Only the soul, the soul of art is lacking. It was not too easy to perceive that for writers coming from Europe there was written the following phrase: « Abandon hope all you... ».

Here too, as in the *Divine Comedy* the lion of pride and the world of greed prevent the free movement of the poet who has his eyes fixed on the radiant heights of art. To the invocation for help there comes the voice of Virgil, hoarse from over long silence, promising that he would accompany the poet through the hells of the damned up to the gates of the City of God. The cinema portal is here too, and if you like, you can find an allegory in the famous yawning lion of the M.G.M. On the other side of the door, though, the courtyards of the American movie houses are filled with mutilated corpses. If you look carefully over them, you will recognize the remains of Tolstoy, Dostojevsky, Flaubert and Daudet. The studios, bristling with enormous streaks of light, palpitating and rumorous, the mechanism which can make the tenderest of sighs come from loud-speakers like the voice of the hurricane, the wires, the tubes, pipes, machines, the crowds of actors and actresses, the hangars crowded with enormous pieces of scenery as big as towers, all give the impression of another planet, an immense distance away, all pervaded with a marvellous solitude utterly different from our own where man used to work by simple candle light and do his writing with a quill. Or the hut in a forest of a Knut Hansum of our epoch occurs in contrast to us where we heard the cock crow and watched butterflies flying by the windows.

Oscar Wilde wrote (before the American film was even thought of) that the human fantasy had undergone vast modifications. The arid historians of the antique epoch

wrote marvellous romances under the guide of history, while novelists of modern times, out of a wild tangle of fantasies, labour with their sweat to produce stories of the stiff and boring facts of reality. The modern novel is in the direct line of the American motion picture, which has brought down the literary taste of the public in an incredible fashion. Nor it is any justification to say that it has, at the same time, provided a form of amusement for strata of humanity which hitherto lived in intellectual darkness. The big commercial cinema trade has not lifted up the crowd to higher intellectual levels, but, on the contrary it has had a deplorable effect on their fancy and sentiments. To be fair, we must allow the American film industry some good qualities and merits. It has opened up new fields in the matter of *mise-en-scène*, it has made world famous actors and actresses with new capacities, though having no just sense in the matter of publicity, revelling always in a monotony of superlatives. The material force of this advertising madness has driven any fair cinema criticism from the press of the world, any criticism, that is animated by serious intentions, and this fact also shows how the film is capable of subjecting the spiritual side of a man without any control or regard. The film has only created two really useful things for the masses, the news-reel and the cultural picture which opens a marvellous living illustrated book to the spectator's eyes, which shows him the mysterious face of the world and takes him to countries and shows him happenings which are all outside the possibilities of a poor man's knowledge.

The moral and literary drawbacks of the American film are to be found almost in equal quantity in the European film. The two, in fact are children of the same mother. In the European film we only find commonplace love stories, psychological problems

worked out with industrial solutions, out of date romanticism; all scanty spiritual nourishment for the tired workers.

There is only one critical way to look at the film. The film is not cultural but reflects civilization. It stands for something in the history of humanity, rather like the coming of the aeroplane or the apparition, three thousands years ago of the horse on the plains of Macedonia. The appearance of the horse completely changed the forms of human life from India to the Adriatic sea. Today a similar change is taking place through the agency of the whirring reels of film, but this time the change is being extended to the entire earth. This transforming power has come from America and its full manifestation has only developed in the years following the war.

What has happened in America? Walt Whitman, the great American poet of the last century, foresaw, as an old man, the future of his country. «Fertile and infinite as America may seem to us today, it is without counsel and objects in the matter of its tremendous future. For me this concentration of studies, researches and attempts is much more picturesque than the deeds of other countries in the past, including those of Greece. If the empire of the New World comes and is worthy of this name, it will certainly not be the empty product of fancy or a form of sentimentalism.

Time has perhaps never more cruelly proved a poet's prophecy untrue than in this case of Whitman, who looked at the future through the folds of his enormous hat and his vast beard like an optimistic coffee planter.

The power of human effort dominated virgin nature in America in a very short space of time: «a vast foundry with flying sparks, incandescent metals, roar of mines at work, swaying masses of workers passing from place to another, dark shadows, steam,

quarrels, profit, gain, hideous noises, confusion, clouds of dust». This was the way Whitman saw America. This is indeed the state not only of America, but the whole world today. This violence of crude human effort would seem to have buried the pure deep sources of human spirit, from which art as we understand it in the European and Asiatic sense draws its inspiration. Of one matter we can be quite sure: the form in which literature and the spirit of daily life manifests itself today is not the book or the stage, but the film which draws gradually further away from book and play.

During the last few years much has been written and said about the crisis of the theatre. First of all, in accents of superiority, people said that the cinema and the radio could not possibly harm the theatres. The theatre was something quite different, it had the presence of the human body and the fascination of its irradiations could not be imitated. Then it was stated that the crisis of the theatre was merely a temporary thing. Today we are no longer under the illusion that the life of the stage is independent of our economic life and that our economic life will shortly gather up again its wonted rhythm. The hurts are too serious to be cured in a few years. It may be that several decenniums will have to pass before the world will be made quite healthy again, and see with quite different eyes to those of our generation.

These different eyes will be given it by television.

I recently found myself in one of the laboratories of the powerful and fantastically modern building of the Berlin Radio Central Station. I had a feeling of awe in the secret dome of the infinitely complex brain of the 20th century. Wires, lamps, marvellous humming lights, tender throbbing of invisible motors, while on a table there was a mysterious cabinet of the shape of a

tomb with small window of concave glass not much larger than the palm of one's hand. The concave window trembling with shadowy and mysterious lights seemed like the eye of some enormous bird. Great owls have large fixed eyes something like this. I looked inside the window, and I perceived a picture behind, which was no larger than a packet of cigarettes, eight centimetres by ten. In a minute or so the picture seemed to increase in size. I was left alone in the strange room, the walls of which were covered with black cloth so that no exterior light should disturb the magic. In the next room, I could hear short orders being given, and the noise of a motor somewhere. In the background of the picture in the concave window appeared the tiny figure of Hindenburg taking off his top hat to greet a committee. The whole thing only lasted a few seconds. Then came another picture; an automobile came racing down a road and turned off at the last instant. Then came another picture which showed three pretty

girls playing with a ball in coquettish bathing dresses by the seashore. The pictures wavered a little, and were not very light, as if they were inspired by blind men. Still, this was television, real, authentic television. I had the sensation that the child was born whose father was the sound film and whose mother radio. In a few years we must be prepared to not only to listen to the lecturer's voice but also to see his figure, and to watch the movements of his lips or see him scratching his forehead in perplexity.

This will be the highest form of presenting literature. The stage and the book will be reduced to a continually narrowing circle. The novel and the play will enter into people's homes in the form of television which, with time, will become as indispensable and usual as the electric bell or the telephone or even the modern wireless set.

Literature must naturally be prepared for this great task, for this vast fabulous transformation.

THE NATIONALISM OF THE CINEMA

BY

Claude Farrère.

ONE can say anything one likes of the cinema today. It will probably all be correct, and there will be reason for saying it. It seems to me, however, that we have not yet reflected, nor have we spoken as we ought to speak of the really unforeseen and formidable revolution which the talking film has worked all of a sudden in the domain of what is wrongly called the tenth art.

It is not very long since the internationalists were delighted at having found in the cinema, which was then a silent cinema, a universal language as easily accessible to the public as the dead Volapuk or the dying Esperanto. Were not the silent moving images, in fact, a language which the entire planet understood, without distinction of longitude or latitude? A man appeared on the screen with a knife in his hand. He killed another man. The Esquimaux understood this simple universal story as did the folk of Insulind, the American or the Patagonians: Italians and French men understood equally well that a murder was being shown on the magic screen. A picture of this kind, universal in character, had to be very simple to be so universal. The scenario writers were obliged to indulge in an extreme simplification of their thought, and were constrained to remove everything which savoured of fineness, delicacy, personality or nationality. The moving picture, since it must be easily understood by all and every

race and nation, in all parts of the world, was obliged to reject everything which each race, born, nourished and brought up under a certain sky and in a certain atmosphere, owed to that sky and atmosphere. In short, the silent film which nobody can deny has produced some admirable things in the purely material domain, moved towards a simplification, a conventionalizing of the human race, which was only a negation of a truly refined civilization.

In fact, if all the men of the earth do not speak the same language, it is because their special genius, adapting itself to special local conditions, has introduced differences between one race and another. A Chinese and a Japanese, for instance, are two very different persons. Each has progressed by ways and paths unknown to the other. They have travelled in different directions, taking them far apart. They will both go still further afield. On condition that their personal originality be safeguarded. A Chinaman should remain a Chinaman, and a Japanese a Japanese. This is how humanity advances. And it must go forward or die. Do not tell me that when they have arrived at a certain point in their evolution, Japanese and Chinese may find themselves, some day, at the antipodes of one another, and that, through their self-esteem clashing, they will fight. This is possible, but it would be a pity. Still, it is better to have the Chinese and Japanese

as enemies — for a while, after which they can become reconciled — than indifferent Chinese and Japanese because they are amorphous and uniform in a way that is without grandeur or picturesqueness and would inevitably lead to sterility. War is certainly a great evil, but it is an evil which has often brought forth good. In any case, some movement is better than immobility, which is the same thing as death.

The talking film, restoring to each film the language in which it was thought, that is to say, the climate in which it was conceived, provides a magnificent remedy for this serious danger which arose with the silent film. A Latin film will henceforward be a Latin film, and if an Anglo-Saxon version of it is made, far from compromising the author's originality, it will show an Anglo-Saxon public how a Spaniard, a Frenchman or an Italian reacts under certain circumstances. This reaction will never be that of an Englishman or a German.

The pacifists themselves have reason to rejoice, since a better understanding of one another is the only real means of learning

to be tolerant. At the worst, if it comes to a battle, the battle will be among people knowing and understanding one another, and therefore capable of mutual esteem and respect.

I perceive, in all that concerns the talking film, a great future for mutual knowledge with immense possibilities for each people to make its own way, towards its own future. Whether this future be good or bad depends on men and not on the makers of films. Novelists have certainly never modified life. They have shown us what life is like, sometimes opening the eyes of a public which would rather prefer to be blind.

So much the worse for people who want to be like the moles, but we need light. Nor it is a matter of lamps. The thermometer does not make it hot or cold. It tells the world what the temperature is, and in this way it has saved humanity from numberless pleurisies and cases of pneumonia. This is a role with which even the most ambitious people might well be content, it seems to me.

THE FILM IN INDIA - AN OUTLINE

BY

J. L. Joshi.

THE first successful feature film in India was produced in 1913 by Mr. D. Phalke who has since been called «the father of the Indian Cinema». It related the story of «Harishchandra», a mythological saga occurring in the great Hindu epic the Mahabharat. The first Indian talkie was produced in 1931 by Mr. Ardeshir Irani of the Imperial Film Co., and the first multi-colour production in 1933 by the Prabhat Film Co., of Kolhapur. The first cartoon film is in the process of making and expected to be ready for exhibition within a short while. The story of the Indian film happens to be crowded between these years.

It may be noticed that these pioneer results were achieved in Western India or more particularly in and around Bombay, which has always been the foremost producing centre till this day. Calcutta, a city in the East of India, comes in second. Here attempts at film production were made even prior to 1913. These attempts do not, however, appear to have been successful beyond the production of some stray topicals. In the absence of authentic records, it is difficult to state in detail anything about them. Though second in point of quantity, Calcutta often excelled Bombay in point of quality. «Puran Bhakta», a talkie produced in 1933 by the New Theatres, Ltd., Calcutta is still considered to be the best representative film of strictly Indian production.

Between 1913 and 1931, the most out-

standing event for the Indian film industry was the enquiry conducted by the Indian Cinematograph Committee appointed by the Government of India in 1927. In their report which made several recommendations for the proper and speedy development of the industry, all of which have, however, been shelved to this day on the ground of shrinkage of finances. It is regrettable that when almost all the progressive and civilized states of the world are actively associating themselves with the film industry, the Government in India should have done nothing

MARY PICKFORD
HOLLYWOOD, CALIF.

May 30th, 1934

Executive Committee
Venice Exhibition
Via Lazzaro Spallanzani 1a,
Rome, Italy.

Gentlemen;

It is indeed a pleasure to send cordial greetings to the great Venice Exhibition which, for the second successive year, is effectively directing attention to the remarkable progress made by the motion picture both as an art and as an industry.

More power to the Exhibition!

Cordially yours,

Mary Pickford

here beyond the establishment of the three Boards of Film Censors in the Cities of Bombay, Calcutta and Madras. As a matter of act, these boards have been always looked upon by the producers and others who are qualified in this behalf, as a definite hindrance to the progress of the industry.

The growth of the industry has been severely handicapped by several other hin-

drances right from the beginning. After Mr. Phalke's return from abroad in 1912 and the production of his first picture in 1913, the world war closed all opportunities for Indian producers for technical training in foreign countries. Those who acquired experience in pioneer studios, tried to set up their own establishments, improved their technique as they proceeded and thus by trial

OLYMPIA 2911



May 29, 1934

Executive Committee,
Venice Exhibition,
Via Lazzaro Spallanzani 1a,
Rome, Italy.

Gentlemen:

The Venice Exhibition deserves the hearty support of everyone who has the best interests of the motion picture at heart, and I am happy indeed to send you my friendly greetings and to salute the fine, constructive work you are doing.

I hope the success of the Exhibition will encourage you to make it an annual affair because the spirit of keen competition it creates among producers in all parts of the world will act as a spur to greater film achievements.

Very cordially yours,

Walt Disney

W
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L

SILLY SYMPHONY

Sound Cartoons

and error, ultimately established a successful film industry, suited to Indian conditions. Even today, there is no institution in the country for technical training in the various branches of modern cinematography, no trade or technical library, no research laboratory. The Motion Picture Society of India, Bombay, which is perhaps the only organized and representative association connected with the industry, is urging very strongly that these facilities be provided by the state without any delay. It is a cry in the wilderness. Private initiative is unable to take up such an immense task and State authorities seem to feel no responsibility for the progress of the industry. It is even doubtful whether they have realized the real importance of the modern film in the life of the peoples.

The nature and scope of the Indian film are determined by the existing marketing conditions in the country. Amongst the civilized peoples of today, Indians are perhaps the poorest in the world. There are about 650 theatres out of which not even a half are wired for talkies, in a land with a population exceeding 330 millions. A country as vast as the whole Europe without Russia, is cut, both horizontally and vertically, by differences of languages and religions which have the effect of narrowing down to that extent, the available market for a modern talkie. When the country's literate population does not exceed 8% of the total, it is no wonder that the cinema habit has yet to grow. Educational or social films, do not

therefore prove a profitable venture, and most of the Indian productions have so far been either mythological or historical.

While the factors mentioned above determine the financial returns of an Indian film, other factors perhaps even more favourable, determine its cost of production. All the necessary machinery, chemicals, raw film and materials required for the purpose, have to be imported from foreign countries. Imported goods being proportionately costly, are subjected in addition to a heavy import duty. The heat of the tropical sun necessitates the installation of specially elaborate equipment. And finally, the vagaries of the Censoring Authorities have often ruined a whole picture. No wonder then that capital is shy and the pace of progress comparatively slow.

In spite of these difficulties and shortcomings, the attainments of the industry as a whole are still worth being proud of and the level of its technique can, in the opinion of foreign experts and competent observers, very well compare with that of the best of the advanced countries of the world. The industry is entirely indigenous, in its origin, control and development, a rare phenomenon in a country like India. When it is considered that no foreign films can ever take the place of Indian production, since her highly developed arts and culture could never be adequately expressed otherwise than through an indigenous medium, the future of the industry appears to be hopeful and assured.

CHAMBRE SYNDICALE FRANÇAISE
DE LA CINÉMATOGRAPHIE

ET DES INDUSTRIES
QUI S'Y RATTACHENT

CABINET DU PRÉSIDENT

13018, RUE DES MATHURINS (9^e)
TÉL. CENTRAL 20-22

Paris, le 27 juin 1934

Monsieur le Comte VOLPI di MISURATA
Ministre d'Etat
Président de la "ESPOSIZIONE BIENNALE
INTERNAZIONALE D'ARTE " de Venise

Mon cher Président,

Au moment où va commencer le deuxième festival international d'Art cinématographique, j'ai l'agréable devoir de venir vous renouveler l'expression de la gratitude de toute l'industrie cinématographique française, pour la très noble initiative que vous avez prise en introduisant dès août 1932 le Cinématographe dans le cadre de l'Exposition biennale de Venise.

En donnant ainsi au Cinématographe ses lettres de noblesse, vous avez grandement contribué à faire reconnaître, par tous les milieux intellectuels, artistiques et moraux, l'importance chaque jour grandissante de l'art cinématographique.

Le grand succès du festival de 1932, le triomphe qui déjà s'annonce certain pour le festival de 1934, sont la preuve évidente de la sûreté de votre jugement.

Permettez-moi, mon cher Président, en Vous adressant ici, à nouveau, mes très vives et très sincères félicitations, de vous exprimer, avec tous mes remerciements, l'assurance de mes sentiments dévoués.

A. Delany

THE CENSORSHIP AND THE CENSORS

BY

Angel Ferran.

The Educational Cinema. One of the problems that arise when we come to regard the cinema as something more than a factory producing articles for trade with the negroes of Central Africa is its force as an instrument of education and the possibilities and ways of utilizing this force to the best advantage.

Like any other active matter — and the cinema by definition is essentially active — it tends to modify in one way or another everything that comes under its influence, everything, that is, which for any reason — and the chief reason is the receptivity of the subject — comes into its sphere of action. Practically immobilized, the spectator at a film projection is subjected to the influence of the picture in an atmosphere the sole purpose of which is to shut him off from any other influence but that coming from the screen. Sitting in his chair in the dark, the spectator suggests a patient on an operating table.

Thus the cinema, an essentially active force, works on the spectator in the same manner, but more confusedly and mysteriously, as traffic signs work on the passer-by, more confusedly and mysteriously, but none the less effectively. The spectator does not feel compelled, he feels persuaded; or rather, he does not *feel* persuaded, he *is* persuaded.

Thus the whole cinema is educational. Why then should we speak of the educa-

tional cinema, referring to films of a particular type, precisely those which can least influence education, because they neither compel with the warning of an immediate danger nor with the threat of a concrete penalty, nor can they persuade just because they wish to compel, and immediately awaken a hitherto dormant resistance by making an open attack and thus exposing their subject matter to argument and objection. Films that are not cunningly prepared and consist of long pedantic reels, can have very little influence on the mind, except as a soporific or as a medium arousing antagonism.

The whole problem is to find some merit in these productions and secure State protection for them. They are teacher-films; they teach the lesson directly, as a lesson, not indirectly, as life does; and they will therefore be hailed with enthusiasm by all teachers, whose work they will simplify without depriving them of their posts. It is obvious that these films can play a part in schools; but outside the atmosphere of moral or material compulsion which exists in a school, the description « educational » is a label often unjustly attached to a film, which, causes people to regard with suspicion excellent films which if presented as ordinary production, would be duly appreciated, and would amuse, entertain and educate.

Were it not for this distinction — which

as a matter of fact, is merely a bureaucratic trick — we could realize that the whole of the cinema is education, like the whole of nature and the whole of life. All that would be necessary would be to teach the way of using it and to learn how to do so, in the same way as we learn to open oysters without cutting our fingers.

The cinema is an industry, and, while nature and life are of such vast proportions that it would be absurd to set up committees on educational nature and educational life, the cinema, being an industry, can have as many committees as it likes, and among them one, or more, on the educational cinema.

If, however, we admit that there is an educational cinema, then we must admit a cinema that is not educational, and we shall see that, in all the films which are not regarded as educational, account is only taken of what is reputed harmful. In principle, the cinema has come to be regarded, if not quite as a disaster, at any rate as a minor evil, always excepting that educational cinema which we hear so much about, but which every spectator secretly abhors.

This view of the matter has led to the appointment, as film-censors, of the very persons who are the worst enemies of the cinema because they see with the greatest lucidity the evils which can emanate from

Charles Chaplin
Los Angeles, California

May 31, 1934.

Executive Committee,
Venice Exhibition,
Via Lazzaro Spallanzani 1a,
Rome, Italy.

Gentlemen:-

It is a privilege to congratulate the Venice Exhibition on its second birthday and to extend with deepest sincerity best wishes for its flourishing success.

In focusing world-wide attention on the motion picture, both as an instrument of education and as a medium of entertainment, the Exhibition is performing an invaluable service to the public at large, as well as to every person engaged in the film industry.

Very sincerely yours,

Charles Chaplin

every kind of film. The censors, therefore, obliged to choose between an unbearable educational cinema and an another kind of cinema which may be pernicious, were obliged to conclude that this latter was an invention of the devil and a kind of plague of Egypt outside Egypt and outside its time, forgetting that the creator of these plagues was not the devil but Jehovah.

But, plague or not, the cinema was an accomplished fact, and they were censors, and therefore they had to get to work. So they did their best to preserve the spectator from evil and keep him to the right path, in dealing with the various films which were offered to them. Since these films were already in a finished state, the censors could not add anything to them, they could, however cut out as much as they liked. And then began the refinements of censoring. Morality became a kind of technique; kisses were measured by the foot; the public were prevented from seeing what they read daily in the newspapers; films were ruthlessly mutilated in order that they might do as little harm as possible.

But to whom were they to do as little harm as possible? To the spectators of course. But to what spectators? Naturally to all of them.

Does that mean that all spectators are equally susceptible to the influence of films? The censors care nothing about that; what they want is to make films as innocuous as possible, and as everyone goes to the cinema, from children to old men, from imbeciles to intelligent people, the censors of course had to cut down everything with the same knife to the level of children in some cases, and of imbeciles in others.

The result is that films which were meant for adults, having been cut down to the intellectual level of children, are rejected because in reality they are films for imbeciles,

if not sub-imbeciles, and we see how impossible it is seriously to make a cinema for children and forbid them to go to halls for adults because the censorship has simply brought down to the level of the weakest intellects, in order that they may understand them, all sorts of things, which may harm them because they are weak in intellect. It is as if the fruit of the tree of the knowledge of good and evil were placed within the reach of everyone.

Does this mean that the censorship should be abolished?

We must assume that film-producers are not wicked and irresponsible people. It is possible that they may be wicked, because everything is possible. They are free to be wicked if they like, but it is a luxury they will have to pay for in responsibility.

The exhibitor, when he presents a film, ought to know to what he exposes himself, as the writer knows when he publishes an article. Criticism which is true, post-release censorship can give guidance to the public exhibitors and authorities, and this responsibility will dignify it in the eyes of others, and, what is more important, in its own eyes.

It would be possible to divide the cinema into different categories, so that each spectator could choose without any compulsion, what suited him best and what he was best able to understand. There would be cinemas for children and cinemas for adults, cinemas for the people and cinemas for the intelligentzia, and there would be an end of the spurious imbecillity of many films which is due to the mutilations of a censorship that is an enemy of the cinema.

One of the gravest preoccupations of present day moralists is undoubtedly the influence of the cinema. Naturally, being moralists, they say « the pernicious influence of the cinema ». The cinema, gran-

diosely styled the seventh art by those who have money in it, is it to a large extent guilty, according to the moralists, of the moral crisis through which the world is going; and hence all their efforts are directed, if not to destroying this influence, at any rate to reducing it as much as possible. In doing this, the censorship is their chief weapon, and they endeavour to make as much of it as they can, being convinced that the scissors, like the cross long ago must be the instrument of our redemption.

But it is as difficult to be a good censor as it is to be a good surgeon (perhaps a little less difficult, and at any rate less dangerous — for others of course). To cut out the malignant tumour of a film in exactly the right spot without leaving it scarred cannot but be a most difficult task.

That is why the censor does not perform it, because he is a moralist and not a film-technician. He is one of those doctors who confine themselves to diagnosis and rely on another doctor for the treatment. The censor will denounce, in a way which will make you think he must have vast and profound experience, a gesture which will be fatal to the salvation of your soul or a scene which will disturb the regularity of your organic functions; but it is no use asking him how the film can reveal its meaning and keep its artistic life if so mutilated, because he will certainly reply that the best thing to do would be to bury the film entirely.

This special conception of the censorship means that, to begin with, the censor is an enemy of the cinema, but that gradually he gets to like it. Nevertheless, jealous of his functions as he is, and extremely selfish, his liking tends towards exclusiveness. Personally, he wants to see the most scabrous films — at first for the pleasure of cutting them, but later mainly for the pleasure of being the only person to see them. Gradually

the virus of the cinema gains a footing in his soul, and, while seeking to preserve the public from infection, he poisons himself without knowing it.

Of course he does not realize this for, if he did, he would shrink with horror from the path of evil; but this apparent innocence is even more pernicious, particularly since Freud has supplied the surrealists (and, we were going to add, criminals, but we realize the redundancy and do not make the addition, being sure that both will appreciate our courtesy) with instruments of such precision. There can be no doubt that if we add to the profound though theoretical knowledge of evil, which moralists may be supposed to possess, a secret liking, however unconscious for that same evil, we run the risk, as a result of a moment of absent-mindedness on the part of a film-censor, of finding the most dreadful crimes transformed into the highest virtues, because the moralist will certify them to be such and against a moralist's verdict there is no appeal.

The gravest problem of the cinema, then, is not that of the censorship, but that of the censors. Modern Society, which, although it does not advertise the fact, is as anonymous as a joint-stock company, has paid too much attention to the protection of the public against films, and has lamentably neglected the protection of censors. It is a very convenient argument that the public constitutes the majority and the censors a minority. This argument used to have some weight, but the League of Nations has put it in its place. It is fitting that society should give its protection to those responsible for censorship in proportion to the effectiveness of their work, because, when the censorship has succeeded in making angels of us all, from gangsters to the members of the Society for the Protection of Animals and

the Little Sisters of the Poor, we shall find ourselves helpless in the hands of a body of censors who, through no fault of their own, have absorbed all the evil which would otherwise have been evenly distributed, and it would be *unfair* if the State, when rewarding worthy and conscientious officials for long years of service should find

itself obliged to tack 20 years hard labour on to their pensions.

A less strict censorship, on the other hand, would be more human and more just, since, when it came to the point, we should be able to meet each other on an equal footing and deal with each other on equal terms.

MESSAGE TO THE SECOND INTERNATIONAL EXHIBITION
OF CINEMATOGRAPHY.....VENICE, 1934

The importance of the International Exhibition of Cinematography to those concerned in the making of films cannot be overestimated.

Every event of this kind is a step forward in the recognition of the growing importance of the cinema both as an art, and as a social and economic world force.

These Exhibitions not only stimulate a healthy striving towards the pinnacle of world film prestige, but also add to international understanding.

I most cordially congratulate the organisers of the exhibition on the great work they are doing, and wish the exhibition the splendid success it deserves.


M. E. BALCON

ASSOCIATION PROFESSIONNELLE DE LA PRESSE CINÉMATOGRAPHIQUE

SIEGE SOCIAL : 102, RUE DE RICHELIEU (2°)
TEL. GUTENBERG 81-54, 81-55, 81-56, 81-57, 81-58, 81-59

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TRÉSORIER : HENRI LAFRAGETTE 10, R. FESSART (IX°)

PARIS, LE 29 Mai 1934

Monsieur le Président du Comité
Exécutif de la 2ème Exposition d'Art
Cinématographique de la XIX Biennale
de Venise
I.C.E. I a Via L. Spallanzani
R O M E

Monsieur le Président,

La Fédération internationale de la Presse
Cinématographique me charge de vous féliciter de
l'initiative que vous avez prise en organisant l'Ex-
position internationale d'Art cinématographique.

Cette importante manifestation cinémato-
graphique mondiale est appelée à provoquer partout
des résultats précis, non seulement dans le dévelop-
pement futur de l'Art des images mouvantes, mais en-
core dans la facilité d'échanges internationaux sus-
ceptibles d'avoir la plus haute signification.

Nous ne manquerons pas d'examiner de très
près votre magnifique effort et de collaborer aussi
étroitement et aussi efficacement que possible aux
conséquences heureuses qu'il doit avoir.

Avec nos compliments renouvelés, recevez
Monsieur le Président, l'assurance de mes sentiments
très distingués.

J. Chataigner
Président de la FIPRESCI.

THE CINEMA IN ART AND EDUCATION

BY

Frances Marion.

THE inclusion of an International Exhibit of Motion Picture Art in the 19th Biennial Exposition at Venice — surely the most beautiful and appropriate place to honor this modern medium for artistic expression — indicates the Italian government's recognition of the importance of the cinema as a national art and as a means of education, and, also, forecasts the arrival of the Italian film industry at a high place among the film producing nations.

The place and power which the cinema holds in the world today is indicated by the fact that every week 70 million persons go to see the films in 60 thousand cinema theatres, and that at least five hundred million pounds is now invested in the cinema business. The people of the United States, who attend the cinema about five times as often as do the rest of mankind, pay a billion dollars a year to their cinema industry, which in turn pays millions of dollars to the government.

Although film production was first conceived solely as an industry, it has become an art, — an art limited by the necessity of producing pictures with as nearly universal appeal as possible. As an art form, it is the natural medium of the end of the Twentieth Century, and it is available to artists in many lines as a means of expression adapted to modern needs. For too

long, cinematography was considered an extremely technical science; actually, first and foremost it should be regarded as an art of the people; a channel for the presentation of ideas that are of interest to the majority of mankind.

The necessity of working within the technical limitations that govern cinema production has not prevented its artists from producing work of great merit, and the sound film, reaching the public through an additional avenue of sense, has increased the range of dramatic appeal. The fact that many films are obviously below acceptable standards of art has not been due to any inherent difficulty in the medium, but because, especially in America, there is too often an infantilism of theme and a puerile or ignoble subject coupled with superb direction. Under all the technical proficiency, there is little evidence of high aim or purpose.

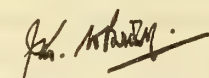
It seems probable that the cinema will more and more offer opportunity for the particular type of genius which each country possesses, so that the films produced by each nation will express something of the artistic patrimony of each race. Unquestionably, the films that have received international approval have been consummate expressions of national genius.

Italy has grasped her opportunity in this

7th June, 1934.

The Venice Exhibition has aroused international interest and appreciation and its importance to the World Film Industry cannot be too highly stressed.

In sending my very best wishes for its success, I anticipate that it will greatly encourage international co-operation and create greater understanding and good feeling amongst the participating countries.


John W. Brown,
General Manager.
British Film Institute.

connection, and undoubtedly through her determination to use the cinema constructively, she is creating a new cinema art, a Fascist art, which will evince the national spirit and energy. The race that produced Michaelangelo, Dante, Galileo, and a host of masters in all the arts, has genius at its command, and will surely evolve its own type of cinema artistry.

In addition to being a popular and easily available form of entertainment, it is evident that the cinema, under proper control, may exercise a most beneficent influence upon a people. Its cultural possibilities are unlimited, and nothing else is as effective as an instrument for depicting governmental progress and the history and growth of a nation. It has become perhaps the most influential medium of expression, and it seems probable that it equals if it does not surpass the press and the radio as a means of reaching the populace. It offers an opportunity, although little advantage has been

taken of it, for developing the mass intelligence of a generation.

Educators and administrators are just beginning to realize the tremendous possibilities of the cinema as an educational medium and to see that perhaps the first use of the film should be to show life truthfully to those who are beginners in the art of living; in other words to educate the child. The present picturizations of criminals and sex maniacs should have no place in his education. Fortunately, an increasing number of schools are acquiring their own projection machines for pictures and are giving their own programs of pictures planned to advance the education of youth. In place of merely reading or hearing about places, events, actions and processes, the children are able to see them, with an especially helpful effect upon the great number whose memory is of the visual type. School administrators who formerly were opposed to the use of the films in their classes now admit that

the films stimulate thought and originality, and that, perhaps even more unexpectedly, the response of the children has revealed the soundness of their criticism and the fundamental wholesomeness of their tastes.

While, of course, films cannot and should not be expected to take the place of home, schools, or church, in the upbringing of the child or in the structure of society, they do offer, under proper supervision, an unexcelled medium for the dissemination of general information and education. More alert than the educators, industry and science have been quick to use the film to record processes such as micro-motion and time studies, and various tests and reactions, while the medical profession, beginning with the use of the film in studies of biology and surgery, is now developing a cinematography of its own.

Because of its increasingly far-reaching influence, it is becoming more and more necessary to insist that the cinema shall be used constructively; that it shall not be used as a medium for the dissemination of ideas and suggestions leading to moral degeneracy. At present, the ordinary cinema aiming at excitement, amusement, and entertainment, offers not only little of real value, but in far too many instances is actually little doing an immense amount of harm to adolescents and to indiscriminating adults by the exhibition of films that are, at least, untrue to life and, at worst, definitely demoralizing.

Public and governmental encouragement of the right type of films is essential to eliminate the false and undesirable elements that make too many films a dangerous influence. At present, in no country do the people have any voice in the selection of

films which shall be presented to them. In the absence of some governmental agency which exercises some sort of control, the commercial interests which produce the films control the selection and treatment of their subject matter. Italy is wisely providing not only for artistic and economic strength, but also for constructive wholesomeness in film production, and is giving further thought to the advancement of her people through the provision that at least ten minutes of each cinema program shall be devoted to films giving items of information concerning Italian progress.

The problems arising in connection with the proper use of the motion picture are international as well as national. The United States has had the misfortune to be judged and condemned by unrepresentative films which it has sent abroad, yet the exhibition, throughout the world, of films made in the United States has resulted in an extremely valuable stimulant to its foreign commerce. For years, the United States has very subtly pictured its commercial products in its films and has made even the ends of the earth familiar with the interiors of its factories and the workings and products of its great industries, with the result that it is now clearly recognized that «trade follows the film».

Far more important, however, than the chance for increased trade which the use of the cinema may bring, is the better understanding among nations which can be brought about by the free exchange of films that truthfully depict the particular customs, culture, scenery, art, music, and national interests of each country. Italy has been one of the first nations to see the

value of such an international use of films, and through the generous support of the Italian Government the International Film Institute (under the League of Nations) has been established at Rome.

Just as great painting and great music appeal with equal force to the people of all races and languages, the art of the cinema is rising above the language barrier. Theme

and treatment have proved to be far more important than language. It is clear that the film is destined to become a major influence in moulding the mentality of mankind and, as His Excellency, Premier Mussolini has said, « it can bring the world together; it can settle all differences; it can become the international medium, educator and adjutor; it even can prevent war ».

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STUDIOS-7210 SANTA MONICA BOULEVARD

LOS ANGELES, CALIFORNIA

May 21, 1934.

Executive Committee,
Venice Exhibition,
Via Lazzaro Spallanzani 1a,
Rome, Italy.

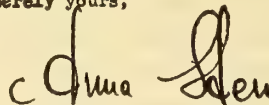
Gentlemen:

I am sure that I echo the sentiments of all Hollywood when I say that the Venice Exhibition is an inspiration to every one of us.

There can be little doubt that the net result of the Exhibition will be to raise the standard of quality and to establish new levels of excellence in all departments of the motion picture.

I sincerely wish you gentlemen all the luck in the world. May the Exhibition enjoy many more happy birthdays!

Sincerely yours,



Anna Sten

MUTUAL UNDERSTANDING AMONG PEOPLES AND THE CINEMA

BY

Ryszard Ordynski.

AMONG the most important lessons which the world war has taught us is the ideal or watchword of *peace* through mutual understanding among the nations. Since the cannon ceased its roar, this watchword has not failed to echo round the world, penetrating into the minds of the people as the projectiles formerly penetrated into the flesh of the soldiers.

It would be unfair not to recognize that humanity, despite the renewal of nationalist tendencies, has made notable progress in the domain of international problems and their settlement, and has excogitated some new methods for resolving differences and contrasts of opinion which for centuries have not only impeded ideas of *ideal fraternity among nations*, but have even rendered good neighbourly relations difficult.

Until humanity, in the best meaning of the word, has reached the highest grade of that reciprocal benevolence which is *friendship* among peoples, it is necessary to explore the sectors of international *cooperation* and *understanding*. This is the first stage of our efforts.

At the base of all collaboration, whether among individuals or peoples, there is *reciprocal understanding* which is the prime condition of all progress in the department of international relations.

The grave error which caused so many political and strategic mistakes during the war, and which consists in basing one's decisions and acts solely on one's own psychology and the knowledge of one's own ego is still an evil that is widespread in our time, especially in the field of friendly relations between nations.

The history of the war shows us how many errors that were disastrous for humanity could have been avoided, if, instead of having a blind confidence in their own way of thinking, the persons responsible had considered certain political and strategic questions from the point of view of their enemies.

Post-war humanity does not appear to have abandoned these errors. An exact appreciation of both enemies and friends requires a precise knowledge of the one and the other, whether one wants to injure or to be useful.

We come back then to the first concept in the field of fraternity between peoples, which is *reciprocal understanding*.

This truth has been recognized for a long time in literature, and radio broadcasters have stressed it also. We have an example of the latter in the following extract of Commander C. F. Atkinson taken from his work « Broadcasting and Peace », published by the

International Institute of Intellectual Cooperation:

«From the international point of view, the peoples need to become better acquainted with the characteristics of their civilizations, arts, the geography of their countries, their beliefs, and the questions which are agitating them...».

Today's watchword then is for a mutual understanding among peoples which is the best starting-point for a world future founded on international friendship.

«In any case — says Atkinson — any effort in favour of reciprocal understanding must be dynamic in a certain sense and not static. This dynamism may take the form of a positive propaganda in favour of the League of Nations and its ideals. This propaganda is, however, far from being sufficient. Society wants more; it wants real contact and desires *truth*. We do not understand one another if we do not take account of our feelings and reasons. Peace itself may be considered threatened if, instead of being anxious to know one another, we summarily state that another's acts are disloyal and egoistic. *Moral disarmament* comes from mutual understanding and not from ignorance».

There is no other technical process which can produce such excellent results in the field of propaganda for fraternity among the nations as the motion picture. The film is the most popular and most complete form of amusement for the people. Besides its descriptive virtues, which are analogous to literature, the modern film has sound possibilities equal to radio and offers us in consequence a double sensation, visual and auditive. In other words, the film is in a po-

sition to give a *truthful* rendering and presentation.

If we consider the films destined to invoke a better understanding among the nations, we shall see that truthfulness is an essential condition for them. We must therefore provide ourselves with some pictures which illustrate the life of a given people, its habits and customs, especially in so far as they vary from our own. The great and truly important thing is to understand *other people's mentality*. It is a very extensive field this, since it implies the revelation of the very soul of a people in a comparative study of emotive or purely speculative reactions, and in an examination of the profound differences in points of view, manifestations of family life, material existence, national and race solidarity, observation and phenomena of daily life. There is also the need of making ourselves familiar with the culture of other nations which are not familiar to us, their artistic and musical feelings, with glimpses of their popular traditions, such as folklore dances and costumes: all subjects which come into the sum total of the actual life of peoples, and should therefore be studied without any theatrical artifices.

We all of us know, and especially those among us who belong to national groups far away from the great world centres, how false and strange are often the notions of the life and habits of a country which is out of the main track of tourist traffic.

In my capacity as representative of Poland. I have often met in different parts of the world persons not lacking in culture who had the most fantastic notions about the daily life of the Poles. Yet one can travel from Paris to Warsaw today in 24 hours, and to Berlin or Vienna in the course of a

single night. Given these facts, what is likely to be the idea of a Frenchman or an Italian of average culture regarding the life and mentality of the inhabitants of the middle of the United States, such states as Georgia or Nevada, for instance, without mentioning more distant peoples such as the Persians or even Bulgarians or the Turks?

How many mistakes are made every day through ignorance of the manner of life and thought of our neighbours? To nail down these mistakes, show the truth in their stead, without having recourse to more or less sensational papers or theatrical artifice placed at the disposal of a badly organized form of propaganda is the magnificent task of the

JOSEPH M. SCHENCK, PRESIDENT
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TWENTIETH CENTURY PICTURES, INC.
7208 SANTA MONICA BOULEVARD
HOLLYWOOD, CALIFORNIA
May 30, 1934.

Executive Committee,
Venice Exhibition,
Via Lazzaro Spallanzani 1a,
Rome, Italy.

Gentlemen:

On the occasion of the second anniversary of the Venice Exhibition, I am delighted to join with my fellow artists in congratulating the members of your committee.

The Exhibition represents a fine constructive accomplishment and will unquestionably prove a tremendous success not only from the standpoint of popular acceptance but from the equally important angle of international relationships.

Very cordially yours,

FREDRIC MARCH

film, which it has so far only partly accomplished and without proper consciousness of the importance of its work. If the mass of the people are to be made familiar with the idea of international collaboration, and it is not to be left only in the hands of scientists, specialists and literary men by means of writings, there is nothing to do but to have recourse to the film. Broadcasting, despite its immense popularity, cannot render such services to the cause of mutual international understanding as the film. And this on account of the other purposes it sets out to serve. It is only the cinema which has at its disposal throughout the world a vast number of halls capable of assuring a perfectly organized distribution of the kind of propaganda we have in view.

We shall have to analyse briefly the cinematographic documentary material existing, that is, the total of pictures capable of giving peoples information about other peoples. The collection of films of this kind is already very considerable, and it may be advisable to proceed to a rational cataloguing of such films, with the eventual idea of filling in the pictures wanting with new films.

The *scientific* and *educational* films always deal exclusively with certain particular aspects of knowledge with the results that the pictures in this category are purely scientific and professional in character, and are intended for definite purposes.

They have had more or less a sporadic character. Pictures made for scientific purposes are generally too concise, too arid for popular appeal. The methods which govern their production have, nevertheless, a real importance and the attention of bodies and persons interested in the study of peoples from the

scientific point of view must be called to them.

Side by side with the strictly scientific films are a large number of *documentary* films produced in various countries and intended chiefly for tourist propaganda.

Though these films are often beautiful and faithful enough, they need a certain modification and control if they are to be used for the international purposes to which we are referring. Propaganda does not always concern itself with absolute truth, but looks out for colour. It seeks to beautify and touch up the truth for technical cinema reasons, or in order to amuse and distract.

The *news-reels* and *cine-journals* which register daily events contain a form of documentation that is most useful for the ends we have in view. They are superior to the films in the category we have just discussed since, generally, they offer a faithful picture of any given event or fact. They have, however, the drawback of all ephemeral news-reels that they do not tend to illustrate the general daily life and tendencies of a people.

Then we come to the endless production of the recreational or theatrical films made of stories from novels, dramas and straight cinema comedies produced with the sole purpose of profit by the various big film firms. It is often possible to find a useful piece of documentation among pictures of this class, for the mounting of a film of this type provides an occasion for illustrating the habits and manners of the country where the scene is laid. As a matter of fact, these films frequently contain scenes which are very useful for the work of reciprocal understanding among the peoples.

We should remember that any employment of recreational films for the purposes

we have in view necessitates infinite care and vigilance on the part of those intending to make use of them as well as a professional knowledge of films and a regular acquaintance with the subject treated to avoid the danger of being unduly impressed by scenes which imitate reality to the point of creating confusion, and yet show a reality which does not correspond to the truth.

In order that the film in its full efficiency can render those services we expect of it for

the task of bringing the nations together, it becomes necessary to gather together those documentary pictures which already exist in superabundance, and proceed to a rational classification of them, eliminating everything superfluous or chaotic or lacking in faithfulness. In this way, we could form a regular catalogue, which carefully kept up to date, could be at the disposal of all persons interested in the idea of social understanding. The first to gain advantage from it would

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STUDIOS-7210 SANTA MONICA BOULEVARD
LOS ANGELES, CALIFORNIA

May 27, 1934.

Executive Committee,
Venice Exhibition,
Via Lazaro Spallanzani 1a,
Rome, Italy.

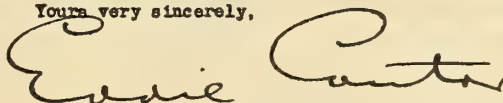
Gentlemen:

It is both a pleasure and a privilege to felicitate you on the opening of this year's Venice Exhibition.

You have a right to be proud of the magnificent record you made last year, and it is my earnest hope and belief that the second Exhibition will achieve an even greater distinction than the first.

In furnishing a medium and offering an incentive for the various national film industries to exhibit their products, the Venice Exhibition is making an important contribution to the progress and welfare of the screen.

Yours very sincerely,



Eddie Cantor

be the institutions and associations which are engaged in propaganda for spreading mutual knowledge of the peoples. They could use the same films for scientific ends. Some official institutions and other organizations which have as their object international peace could deal with the matter of renting and distributing so as to help on their spread in the furthest off parts of the world.

Simultaneously with this work of collecting and classifying, there should be an active and intelligent production of new pictures intended exclusively for encouraging international friendship among the peoples. In my opinion, this is a task of the greatest importance and the maximum urgency. But is not an easy task. We must prepare a regular plan of action and lay down a method to followed in every country for the production of the kind of films we have in mind.

This plan should include the cooperation of all countries, since errors and misunderstandings of peoples, customs, manners and ways of living are just as frequent and unpardonable in the case of remote peoples as with neighbours, whom logically we ought to know better.

The great work I have traced out must necessarily be centralized. The central body called to absolve this task would collect the documentary films already existing and see to their classification.

It is not too much to hope that such a central body would be in a position to secure the necessary means for the production of new films for international fraternity purposes by means of contributions from the

governments interested and from institutions and associations.

The cost of production ought not to be excessive if the organization of the body is national in character, since it could assist in the placing of films and act as a distributing agent for news-reels, etc. and for a service of official propaganda.

One of the special tasks of international cinema work consists in cultivating the young people, who are one of the most promising grounds for sowing ideas of international fraternity. All those who are interested in fraternity between nations and their *rapprochement* ought to be ready to learn not only what the present generation is thinking but also the aspirations and ideals of the rising generations. One often notices the stupor and sense of amazement which a middle-aged or elderly man will show when he is brought face to face with some of the manifestations of the rising generation. The way the new generation thinks and considers things is of great interest to us.

It is always worth while studying the currents of opinions among the young so as to be able to compare them with other tendencies of young folk in other countries.

With regard to the programme of work which I have outlined here there is no need to look for other organs and institutions apart from those already existing under the auspices of the League of Nations. These organs are capable of uniting their efforts towards the common end. I refer to the International Institute of Intellectual Cooperation and the International Institute of Educational Cinematography.

THE EDUCATIONAL AND SOCIAL VALUE OF THE NEWS-REEL

BY

Germaine Dulac.

THE cinema is only 40 years old, which means maturity in the case of a man, but is only early youth for those inventions which are always subject in the course of their evolution, to a rapidity of adaptation on the part of the intelligences which they set out to conquer and dominate.

The motion picture, from its very beginning, in the discovery and mechanical and technical improvements of the brothers Lumière, surprised the world which was not in any way ready to receive it.

When printing and newspapers were introduced, they certainly created a revolution in the distribution of thought, but they did not at the same time introduce a new means of expression. Rather, they filled a practical need. They spread the written word, and substituted a more rapid method for that of handwriting. In this way, printing rendered the intellectual and sensitive world available for everyone, without, however, offering any revelation of it.

It was different with the cinema with which no one was in a position to deal. No one felt the need of it when it came. Newspapers sufficed to spread news, and the theatres provided what shows and spectacles the public required. What contribution could moving photographs be expected to give in the domain of knowledge of art? Their artistic, scientific and social capacities were neglected since no one knew then the interior possibilities of the motion picture.

The first apparatus had been produced, however, and men wanted to copy it. Thus the era of the engineers began, the period of the mechanics, the opticians. Again, since ribbons of film were required, it was necessary to turn them out, to multiply them infinitely for all the pictures that had to be made. So the chemists came into their own too.

New professions came into being, and photographers became operators, not only for making the pictures, but also for running off the projections. On the literary side, authors began to write syntheses of films, and were known as scenario writers who built up the film story. Then actors were wanted to act the parts in the films.

Various interests and different spiritual tendencies gathered round the motion picture, from its earliest days, and helped to form its traditional, economic, social and artistic life. Shop-keepers, businessmen, scientists, showmen, artists, artisans found themselves, against the trend of their aspirations, united in a common effort. They did not at first understand all the vast possibilities and extensions of the new idea, though they saw that a new form of business and a new activity was opening up for them.

In the beginning, the motion picture was too young an invention to be considered in its early manifestations as an expression of thought. It became intellectual bit by bit,

without any definite policy or intention, while its economic bases grew continually more solid.

It reached the zenith of its financial and popular success before its spiritual character was properly defined. The businessmen created the *need* of the film before the artists were able to meditate over its possibilities.

There is no use in going into here the matter of the dramatic films which were produced by commercial organizations. The taste of the public sought to elevate these pieces to the dignity of an art-cinema expression. There is an error here, which it necessary point out. The dramatic film is an application of the cinematographic art, but not the expression of its inner truth, which is better illustrated by the scientific film or the news-reel.

These two kinds of film, one as a result of its demonstrative capacity, the other through its social value, have seized the intimate meaning and essence of the motion picture much better, giving us images of life in its various instinctive movements. Freed from all commercial interference, and developed in an atmosphere far from cine-theatrical works, having no limit to their expression of thought, such films have given us sincerer models than the regular-drama with a more universally human character.

The dramatic film developed with commercial aid far more rapidly than the educational film or the news-reel which has always remained within the cycle of cinema life as a form of propaganda, teaching and distributing of news, almost without considering the question of profit. For this reason the distribution of such films remains still uncertain. The exhibitors take little interest in pictures of this kind, which find favour practically only with the managers of the recently built news-reel theatres.

Notwithstanding this, the cinema news

theatre which we are discussing is really the great social educator.

Its puts the most opposed mentalities into communication, and joins in a magnetic current the most divergent races of the world. It shows every spectator the real aspect of far off countries and men, without the official mask of tradition and historic fantasy.

Like the scientific film, the news-reel reveals the truth of life which one could not know otherwise than through books, newspapers and manuals. Thus considered, it becomes an individual experience which allows everyone to see it, live it and not only fancy it. The news-reel unites, without any need of intermediaries, classes and races, sentiments, joys and happinesses so that humanity is uplifted above its individual characteristics, and through a gradual comprehension of life begins to forget and forego its hates.

The news-reel is made day by day, and cannot therefore be thought of as a premeditated thing. It seizes events of which it becomes a truthful mirror. It illustrates persons and facts. It even goes so far as to seek the intimate reason of their moral and sentimental motives. It is the mirror of any country, its pleasures and efforts, its joys and sorrows, and in this way it can lead to accord and discord. In the farthest off parts of the world, in all latitudes and longitudes, the news-reel remains what it is, a fragment of the world's sincerest life, beliefs, struggles, woes and ideals.

All the news events of the world are, as a rule, gathered together in the news-reel programmes, edited in the forms of regular papers or bulletins composed by a large number of photographic reporters. They cover all fields of activity national and international, political, judicial, scientific or artistic.

Thanks to the news-reels, we are able to become familiar not only with the outstanding figures of our national world, but with the figures of the international chess-board. Cases have occurred where men who have been unpopular with the public of certain foreign countries have won sympathy there owing to a frequent appearance of their pictures in the news-reels.

The public even comes to recognize changes in their habits, dress and manner. Sympathy is born from familiarity, and perhaps an understanding of other peoples' ideas. A

knowledge of men and things teaches us to reason better, and the walls of ignorance and hatred fall. The vagueness of words can be harmful; the precision of the motion picture image brings clarity and truth.

Thanks to the news-reel, we can penetrate into the heart of diplomatic debates, see something of the alliance and disputes of nations, their ways of living. We can see how men live in various climates. Little incidents and observations of small account which have often nothing to do with the major problems of the day sometimes help

JOSEPH M. SCHENCK, PRESIDENT
DARRYL F. ZANUCK, VICE PRESIDENT



CABLE ADDRESS, TWENTCENT
TELEPHONE GRANITE 5111

TWENTIETH CENTURY PICTURES, INC.
2208 SANTA MONICA BOULEVARD
HOLLYWOOD, CALIFORNIA

May 26, 1934.

Executive Committee,
Venice Exhibition,
Via Lazzaro Spallanzani 1a,
Rome, Italy.

Gentlemen:

Please accept my heartiest
congratulations and best wishes for the con-
tinued success of the Venice Exhibition.

We of the screen have a
direct and vital interest in the Exhibition
because we consider it an ideal world agency
for emphasizing in impressive fashion the
giant strides made by the motion picture in
the various film centers throughout the world.

Very sincerely yours,

Ronald Colman

RONALD COLMAN

to create bonds and promote understandings. Whether we want it or not, owing to the operation of news-reels, ideas circulate, sorrows become common, less strange and less abstract. The news-reel helps by giving us a wider knowledge of the world to free the senses of the individual and tune his spirit with the general universality of mankind.

The news film reflects also industry and arts. We can learn through it the efforts and skill required in the manufacture of a certain product which may come to us perhaps from some distant corner of the globe. We can place objects in their ideal and natural surroundings. A sense of fraternity arises from these circumstances.

Hygiene, sport, scientific discoveries, new educational methods come within the scope of the news-reel in all countries. It is the mirror of all civilizations in all parts of the world. It is an expression of enthusiasm and misery which every country offers us in its films. It is life itself.

The news-reels breaks down barriers. By its nature it must be indiscreet and varied. It teaches without form or methodology.

All national inventions can be made international through the operation of the film news programmes, as can all the conquests of the spirit and science. Formerly the latter were the exclusive property of specialists and students. Today they are at the disposal of the humblest and least cultured spectator who sits in his chair in the cinema hall and observes.

The following reflection may be made. If we tell a story, we surround it with fantasy, and therefore, in a way, we deform it. In the case of the news-reel, the spectator who has paid for his seat in the picture palace is in direct relations with the events, beings, ideas and objects of the whole world, with universal ideas. His relationship is so

direct that often the anonymous spectator is inclined to manifest his approval or disapproval in the face of certain happenings or events. He feels that he is part of the events himself, since it is the whole life of the world which passes across the motion picture screen in the brief quarter of an hour reserved to the news-reels. Regular currents of sympathy and antipathy are formed in this way.

The public is today, all over the world, most anxious to see the current news-reels. These pictures are not yet sufficiently journalistic in their way of presentment, and are still too bound up with the old cinema traditions. They ought to free themselves from these links with the past. Generally the reels are changed once a week in most countries and often twice a week. In America, they are fresh every day. With regard to the important question of exportation, countries sometimes exchange their news-reels with other countries, while sometimes the trading is entrusted to special agencies or firms. It occasionally happens that foreign operators may not make news-reels in foreign countries, but in one way or another, and in spite of obstacles, all the countries collaborate with one another. These news films are bought or exchanged from abroad, on a meterage system, while internally they are rented by distributors.

The news-reel has not the same news mobility as the press for obvious technical reasons. It cannot be made or distributed as rapidly as a newspaper. At the same time, the news-reels are aiming at the establishment of a new kind of rapid journalism. They smack of the technique of the cinema in the shooting, but their spirit is the spirit of the newspaper, and as time goes on, it will become more and more so.

The following are the important *desiderata* for the news-reels, in my opinion:

1). Efforts should be made to free the news-reels from the old formula of cinema distribution and handling. They should become more elastic. The fact that the old method of distribution prevails does not mean that tomorrow's will not prove one of the greatest attractions for the public.

2). In order to be well informed, a news item picture or news-reel ought to be able to receive news pictures from all over the world without having to pay customs dues so that the films can enjoy the rapide

kind of transport. As a matter of fact, customs dues on films, even on news-reels are a very heavy item in the cost of offering such pictures to the public, and cause a grave interference with this exchange and sale.

3). A news-reel ought to be perfect and objective in character in all that concerns its international aspects. The sub-titles should be edited in such a way as to arouse the interest of all classes in all nations.

4). Everything should be done to stim-

GEORGE ARLISS

April 17, 1934

Executive Committee
Venice Exhibition
Via Lazzaro Spallanzani 1a
Rome, Italy

Gentlemen:

I am delighted to send the Venice Exhibition the cordial greetings and good wishes of myself and my fellow associates in the United Artists Corporation.

The sponsors of this Exhibition are to be congratulated for making it truly international in character, scope and purpose. By attracting visitors from all parts of the world, it is helping to build international good will and to promote mutual understanding, mutual respect, mutual faith among peoples, countries and governments.

Furthermore, by bringing together the motion picture industries of the world in friendly competition, it is furnishing an important incentive toward the artistic development of the screen.

It is my sincere hope that this second Exhibition will achieve a wider popularity and a greater success than the first.

Faithfully yours,



ulate the exchange of news-reels between different countries, and the agents for this exchange should be subjects of the contracting countries and not outside speculators and brokers.

5). Governments should be approached so that news-reel operators may enjoy the same facilities for the making of their photographic newspapers as ordinary journalists, notwithstanding the cumbersome apparatus they are obliged to transport.

News-reels form the most successful means of correspondence and understanding bet-

ween different peoples and different classes. They constitute the best propaganda agent of culture and progress, and the events they show remain much better impressed on the mind than those read in any newspaper. To see a current happening means for any of us to witness an event and live it through. It means participating in the life of the whole world. It is therefore internationally and socially that we must face the questions of the news-reel which contains the real spirit of the cinema.

JOSEPH M. SCHENCK, PRESIDENT
BARRY F. ZANUCK, VICE PRESIDENT



CABLE ADDRESS TWENCENT
TELEPHONE GRANITE 5111

TWENTIETH CENTURY PICTURES, INC.
7208 SANTA MONICA BOULEVARD
HOLLYWOOD, CALIFORNIA

May 29, 1934.

Executive Committee,
Venice Exhibition,
Via Lazzaro Spallanzani 1a,
Rome, Italy.

Gentlemen:

Heartiest felicitations
to the Venice Exhibition on its second
anniversary!

The sponsors of this
Exposition deserve the sincere thanks of
every one interested in the screen - picture-
goer as well as picture producer - for their
enterprising efforts in assembling under one
roof the outstanding film achievements of the
world and showing them under such happy auspices.

Sincerely yours,

Constance Bennett

CONSTANCE BENNETT

FILM CRITICS

BY

Mario Gromo.

SOME years ago, there was a period during which distributors and exhibitors found things very much to their satisfaction. The daily papers were starting a regular cinema column, somewhat like the usual theatrical column.

A report of criticism of every film that appeared could be looked for in the papers, and that without spending anything on publicity. Distributors and exhibitors smiled contentedly at one another and shook hands. When some little time later, the critics appeared in the lobbies of the cinema halls and theatres, these was an aureole of happiness and delight around the box offices. For renters and exhibitors, these new critics were journalists, the same kind of newspapermen presented on their own films, persons, that is, who always come into a room with their hats on their heads, who regularly spit on carpets, are in the habit of stretching out their legs on dining-rooms tables, and receiving tips for 50 dollars or so. Then they go home and write a page of tremendous revelations on the love letters of the governor to the actress.

The reality was somewhat different, however. The press was behaving very badly; wickedly even. The critics said that such and such a film was mediocre, even bad, even «rotten». What did this mean the renters and distribs asked themselves. The

new film critics who dared to say what they thought received black looks as they entered the theatres and cinemas. The film folk found that they were in no different position to their brethren of the theatre. The latter, however, owing to their long tradition, have become accustomed to critics, and know that they can be both useful and harmful. For them the theatrical critic is a necessary but unknown factor.

Even now, after a lapse of some time, many cinema merchants have not yet understood that the critic is not an intruder, nor a madman, nor an ill-intentioned destroyer of other people's work. An unfavourable criticism may harm a picture, it is true. Well, no one obliges them to go into the film business. If they decided to deal in shoes, or candles, no daily paper would print reports on the excellence or otherwise of their wares. Criticism intervenes in the case of a film, and should so intervene because a film which is shown to the public touches the domains of taste and morality, and frequently also those of art and culture. The film's influence on the immense mass of the public is at once gross and subtle, overpowering and suggestive, and creates the necessity for some form of public judgment, which shall be punctual and alert, and provide the public with concrete and definite facts. A bad film may be more harmful

for the public taste than ten or even a hundred bad or ugly books. The book may remain unsold on the shelves of the bookseller's shop, while the diffusion of the motion picture is immediate. It can talk to the deaf and the uneducated with a visual power and attractiveness that is far greater than that of the most fiery and magnetic orator.

The motion picture, today, after an undistinguished past, is looking forward to a limitless future, following a period of disorganized efforts sometimes successful, and sometimes not. It is the duty of everyone who feels that the critic's duty is something more than that of being a mere reporter to help on, within the limits of his power, the advent of this brilliant future of the film.

It is absurd to blame a critic if he has honestly expressed his opinion and done what he believes to be his duty. The background and atmosphere of a film, the style of

the production, the lights and shade and the rhythm and manner given by individual *régis seur* to a film are all undoubtedly elements which contribute to the existence of what may be called the art of the cinema. These are things which should interest cinema critics, and not the offended or displeased remarks of the businessmen of the motion picture. The former matters are alone the concern of the disinterested film critic.

There are unfortunately critics — critics in name only — who have nothing but words of praise and honeyed phrases for all and every film. Fortunately they are few in number, and it sometime happens that pictures which they have foolishly magnified and praised are ruthlessly condemned to oblivion by the disapproval of those masses who prove themselves in this way the masters and instructors of those very critics whose duty it should be lead public taste.

VENICE AND THE CINEMA



THE principle that art is universal, that even if it originates in a certain country or race as a symptom of spiritual maturity, this does make it any less the patrimony of the world applies to all the forms in which it is manifested.

Art cannot be considered as being limited only to the theatre, music, plastic creations, the products of a sculptor or artisan who can work in clay or marble, iron or glass, giving the latter forms of grace and beauty. Art is a documentation and an exposition of things and of thought in manifestations of pure beauty, however and wherever it may appear.

The cinema then becomes art when it ceases to be a succession of frigid images, even if they are moving images, and seeks to cast on the screen hidden elements of the life which surrounds us, those elements which we all know or can know if they are shown to us, but which we fail fully to appreciate without the artist's help that brings them into due relief.

The characteristic of universality belongs to all the arts and is a form of absolute internationality, though art does not for this lose its national touch which is clear expression of national spirit.

The film is essentially international owing to the suggestive character of its beauty, its ease of diffusion which breaks down all barriers, frontiers, schools, tendencies and theories. It has a universal language which all the peoples of the earth are capable of understanding to whatever nation they may belong, whatever their religion, social status or politics. An authentic manifestation of art will always be the object of admiration everywhere.

Among all the art manifestations which are connected with the theatre the motion picture is that which better than any other has these characteristics of universality. Better than the others because it has in it possibilities which are not to be found in drama or opera. The theatre, even when we are witnessing the production of a great artist, has its limits in the manifestations of a single actor, who can make or ruin even a work by Shakespeare. The opera too depends very greatly on the work of individual singers if the music is to

become fully expressive. It needs the cooperation of the orchestra which, though composed of individual members, must know how to synchronize itself in the expression of pathos, and unite the various individualities in one single spirit.

The cinema can do without the actor. The Russian theatre has given us a typical demonstration that an anonymous mass cinema can obtain scenic effects far beyond the capacity of any single motion picture star. It can do without the word, that is, speech, when states of mind are visually expressed in such a way as to give the sensation and feeling of the creator's idea. It can do without pure music, or this can become merely a secondary element with the limited task of creating an atmosphere suited to the better understanding of the piece.

The cinema proves to be, in fact, the result of the collaboration of a large number of artists, and not the work of a single artist who prevails over and imposes himself on all. Those fragments of thought and feeling which can escape a single author are collected and made worth while by the other collaborators, and then amalgamated and realized by true author and animator of the picture who is the *régisseur* or producer.

When the film becomes a work of art, it is perfect and complete in all its parts, a definite manifestation of the mind.

The second Biennial Exhibition of the Art of the Cinema is being inaugurated at Venice in the most marvellous and luminous setting that poetry or the fancy of man can imagine. This is a Biennial exhibition which may very well become a permanent one. It may be imitated in a hundred different cities, but it will remain in Venice as something that cannot be imitated or destroyed. In no country of the world will it be possible to give the exhibition so artistic a framework, with such pure lines, all glittering with gold and sun. Neither are imitations likely to be successful if we remember that at Venice the cinema draws its inspiration from the other arts honoured in the International Biennial of universal art. Art then among the arts. This is the fundamental value of the Cinema Exhibition.

We have here then also a consecration of a new most modern art form. Ten years ago such a consecration of the motion picture would have seemed folly.

Our art is then, as we have said, especially a universal one. The motion picture is a representative element of the life of the peoples, a document of their labour, their thought, their way of feeling and living the life of our world. From this aspect, which is characteristically national, there comes the

film's international function, that it to become an ambassador of acquaintance and mutual knowledge between peoples separated by frontiers, race, language and spiritual barriers, which are as often as not more dangerous and insuperable than the barriers raised by mountains and seas.

When in its early far off days, the cinema came into being, and began its journey round the ways of the world, it appeared that a simple form of amusement had been invented which would prove interesting to children. It seemed little more than a purely mechanical manifestation, an idea which was limited to exposing the most banal of plots or stories, something that if one tried to spiritualize it, could not go beyond the barest form of documentation. There were no régisseurs or film producers. All the fundamental problems of cinematography were ignored then. Mounting was merely a frigid joining up of scenes, the camera a mobile machine in front of a relative mobility on the part of the actors. The illumination was left to sunlight, and there were thus no contrasts, no light and shade. The scenes were based on the aesthetic of the old fashioned coloured illustrated post-card. The drama was filmed stage drama, without any of the vital sense of communication which develops between stage and the public of the auditorium. The men who were to become in the future the poets and dreamers of the screen were preceded by operators who, with more or less ability, concerned themselves solely with showing clear pictures, photographically correct and « sharp », even if colourless and without expression.

The few persons who raised their voices to suggest the possibilities and intimate requirements of the motion picture went unheard. The Great Griffith, who was a real prophet of the cinema did not find many disciples. Only an exiguous minority followed his lead in view of the fact that the cinema offered huge profits for any kind of picture owing to the uncertain, unhealthy attitude of the public.

In the space of ten years two concepts were formed. The one appreciated the world wide possibilities of diffusion in the film which is greater than either theatre, book or newspaper. The second concept referred to the possibilities of the cinema in the difficult realm of art.

The first idea was based on fact or facts, and dealt with the film's capacity for spreading itself through the world. The second idea was of a distinctly spiritual character.

Books, newspapers, the theatre and works of plastic art have a limited value in space. Their spectators or admirers are limited in number. They

cannot exist simultaneously in far off and contrasting regions of the world. Their end is in museums, libraries and reading-rooms.

The motion picture, on the other hand, can be shown to crowds all over the world at one and the same moment. It keeps no tally of the number of its spectators, because it counts them by nations in every latitude and longitude. The same picture can be flashed across the screen in Shanghai and in New York. It can raise similar enthusiasm in America and in China; it can reveal to the peoples of the Far East and the Far West the same identical luminous forms of thought.

Zilahy with his picturesque prose, condemns the art possibilities of the motion picture to failure on account of this very necessity of pleasing everybody everywhere. The great Hungarian writer is correct in theory, but errs in practice. He even recognizes this himself, when, at the end of his article, he refers to the new possibilities which the intellectuals have opened for the cinema.

In any case, as I said before, it is not a question of giving life to universal works as regards their content and possibilities. Films become universal only when they are real documents of the life and of the thought of peoples, of the sentient world, when they face some moral or social theme, when, in a word, they have a definite character.

The cinema of our time is moving steadily forward towards universality in the matter of its content and towards nationality in its thought and action.

Then we come to the idea of its spiritual value. The cinema has been able to summarize in a synthesis the various art forms which are present in the novel, the drama, music and the plastic arts. With the abundant means at the disposal of the producers and the metteurs en scène, the cinema can offer all the various manifestations of beauty in a single composition. The emotive elements which the other arts can use to stir the minds and souls of the readers or spectators can be harmoniously fused and combined in the cinema, and can create a reaction which depends on all their appeals. Therefore, the spiritual value of the film is exceptional and universal in character.

The cinema today has become among the most expressive creations of the spirit of the century in which we live. It has not yet arrived at its definite stage, which will come through other technical improvements and discoveries, by new creations and inventions of producers, from new tendencies which literature and fancy will furnish. But, as it is today it is a magnificent instrument for the manifestation of thought, for documenting life, and all this makes it worthy of its place among the other arts.

The international importance of the cinema depends also on another

element apart from the purely scenic side, or that which depends on the creative will of the various artists collaborating in it. The motion picture is the greatest shaper of universal understanding. It is enough to make us realize this if we reflect that it has the power of presenting to peoples of all races manifestations of the life of other peoples both distant and near, of showing how they think, and suffer, how they are stirred, and how they work. It is a marvellous means for overcoming misunderstandings and dissipating them. A film vision of the creative effort of other nations leads us to a better comprehension of those nations' lives, and help to demolish prejudices and a priori suppositions which are the cause of barriers that otherwise seem insuperable between race and race.

The purely national concept of the film is exalted in this typical international aspect. To bring forward the good qualities and virtues of the people among whom the film was made, to find out and illustrate obvious and hidden aspects of beauty, national traditions, documentary pictures of all that particular people has done to win its place in the world and establish itself against the hostile forces of nature is a world form of art, of the purest kind. This is the appreciation of a national spirit for totalitarian international ends, for a better comprehension of human needs, for the world is after all, despite all its frontiers, nothing but one common humanity.

In the domain of social life, and in the department of labour which includes work in factories, fields and shipyards, on the seas, or in the skies where the spirit seeks the sense of perfect beauty in solitude, the cinema freely triumphs with the unbounded possibilities for art development given it by its immense technical resources.

All aspects of social life have been characterized by expressive forms of art which had their being in time and space at the very moment of their representation. Every historical period has carried with it in embryo the art belonging to it, and the men of that period have felt it and followed it with feeling, abandoning the traditional forms. Historical periods therefore are connected with periods of artistic evolution or revolution. When a people's life continues tranquilly and serenely, without shocks, art takes on harmonious developments which are almost imperceptible to the people of that time. It often is only the children and grandchildren of that time who are able to realize and appreciate the new creations.

When the life of a people has suffered from a violent explosion of a revolutionary character, when violence has raged like the flames from a volcano, the soul of the crowd has sought a different social life, a life with a wider if

more tumultuous atmosphere, and art has flung itself towards the future with a wealth of ideas that may not have been all comprehensible at that moment by folk used to calmer times but which have brought with them new lights and a new flame of life.

So it is with the cinema. In its expression and creation, it is the clearest indication of the way a people feels. The peaceful life of a nation will appear in clear cut lines of art without oppositions, on the look out for a more refined aesthetic in the peaceful framework of a world which has the uniform immobility of things. Nevertheless, it will not cease to inspire art creations. The tumultuous life appears in visible forms of spirits engaged in combat, in the anxious words of innumerable throngs, like a torrent which falls in giddy swirlings from a mountain beside a river with placid, cristal-clear waters.

Here is the strength of the cinema. It is an arm which educates, which suggests and teaches, which kills evil, and gives health to spirits according as to how it is used, according as to how its artist creators feel it and want to express it.

The most prominent régisseurs of the world have been called to Venice with their works. Even cinema forms which are outside the ordinary domain of the spectacle and touch the borders of exceptional art forms such as animated drawings in which the fantasy of a Disney or a Fleischer are revealed, will find their field of action here.

A certain critic has stated that a considerable proportion of the success of any film is due to the publicity which accompanies it. He also observed that the indication added to a film of « shown at Venice » will be like a patent of nobility for a film in the not distant future, something like an pass for a film on to the road of triumph.

Without doubt, owing to the the baptism of art which films receiving their first showing in the city of the lagoons will have, they will be credited with possessing a special right, the right of being recognized in all corners of the world as the choice expression of the most luminous and fanciful manifestation of human thought and life.

L. d. F.

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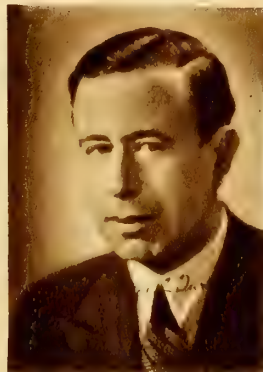
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LUIS TRENKER

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ROSITA DÍAZ



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L'INDUSTRIA AMERICANA
THE AMERICAN INDUSTRY - L'INDUSTRIE AMÉRICAINE



DARRYL
ZANUCK



FREDERICK L.
HERRON



JOSEPH H. SEI-
DELMAN



WILL HAYS



WINFIELD
SHEEHAN



JOSEPH M.
SCHENCK



JACK COHN

L'INDUSTRIA AMERICANA

THE AMERICAN INDUSTRY - L'INDUSTRIE AMÉRICAINE



JESSE L.
LASKY



HARRY
COHN



B. P.
SCHULBERG



SAMUEL
GOLDWYN



CARL
LAEMMLE



SOL M.
WURTZEL



EMANUEL
COHEN

I CLASSICI - THE CLASSICS - LES CLASSIQUES



CHARLES CHAPLIN



BUSTER KEATON



HAROLD LLOYD

I CLASSICI - THE CLASSICS - LES CLASSIQUES



DOUGLAS FAIRBANKS



MARY PICKFORD



GLORIA SWANSON



WALT DISNEY

REGISTI AMERICANI - AMERICAN DIRECTORS RÉGISSEURS AMÉRICAINS

JOSEF VON STERNBERG



FRANK BORZAGE



RAOUL WALSH



ERIK CHARELL



HENRY KING



JOHN FORD





CECIL B. DE MILLE



LEWIS MILESTONE



PAUL MARTIN



IRVING CUMMINGS



JOHN BLYSTONE

REGISTI AMERICANI
AMERICAN DIRECTORS
RÉGISSEURS AMÉRICAINS

FRANK LLOYD



LUPE VELEZ

*I am wishing to
the Venice
Exhibition
Lupe Velez*



AL JOLSON

EDWARD
G. ROBINSON

RICHARD DIX



DOROTHEA
WIECK

*Best wishes to the International
Cinema Exhibition of Venice
Dorothea Wieck*



DOLORES
DEL RIO

*to Venice Exposition
Sincerely -
Dolores Del Rio*



JOAN CRAWFORD

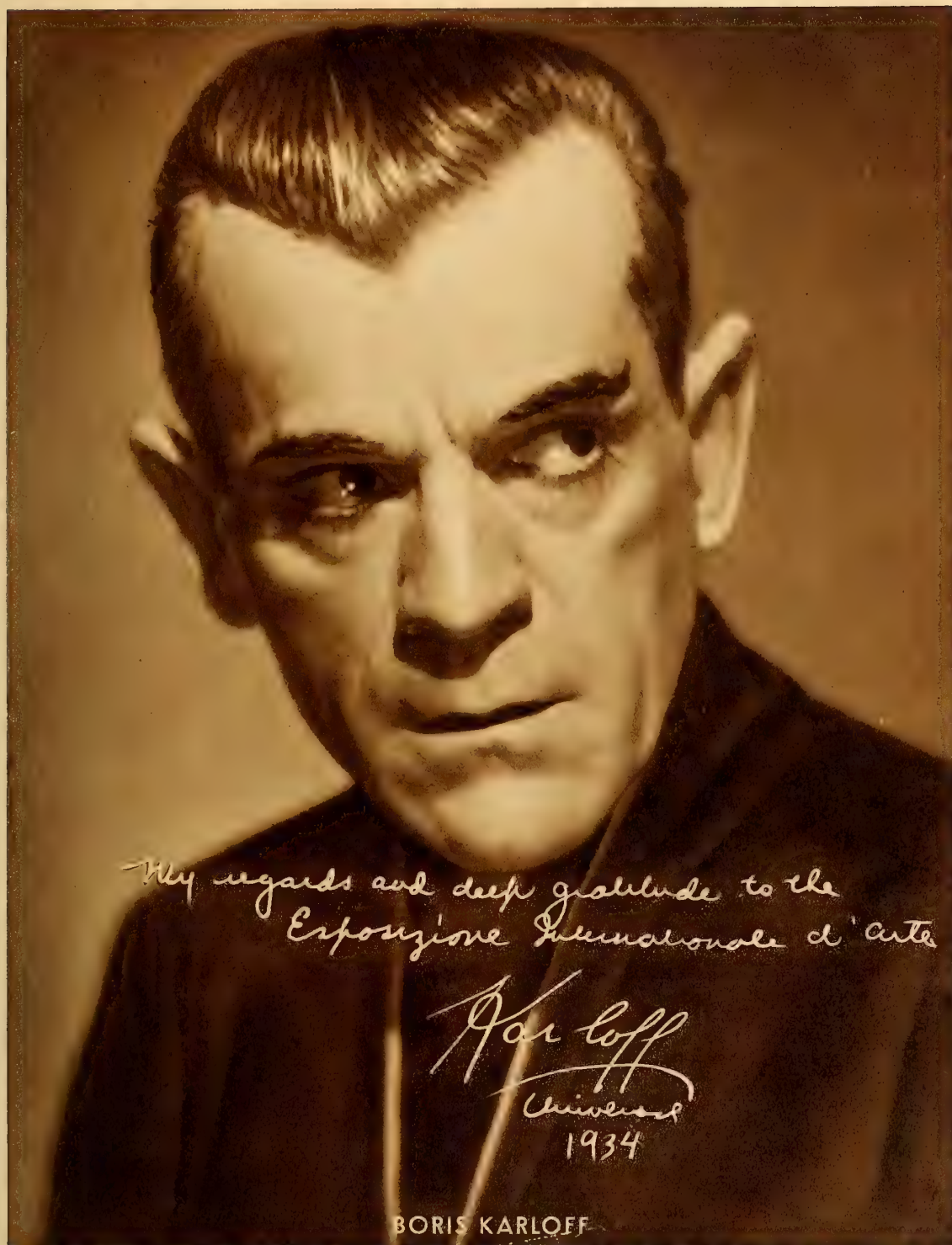


CLARK GABLE

*Greeting
to the Venice
Gala
Anna Sten*



ANNA STEN



My regards and deep gratitude to the
Esposizione Internazionale d'arte

Karloff
Universal
1934

BORIS KARLOFF



WILLIAM POWELL



EDMUND LOWE



JAMES CAGNEY



HERBERT MUNDIN



MAURICE CHEVALIER



JIMMY DURANTE

LOUISE

LATIMER

SALLY EILERS

MARGARET
SULLAVAN

CHESTER
MORRIS

FELTON
FOSTER

Joan Blondell
JOAN BLONDELL

WALTER CONOLLY

WARNER OLAND





JOE E. BROWN

SEX-APPEAL



JEAN HARLOW



MAE WEST



MARLENE DIETRICH

*To -
International Convention
Exhibition of Venice,
Sincere good wishes,
Joe E. Brown*

*To -
The International Convention Exhibition
of Venice I wish much pleasure
Marlene Dietrich*

EDDIE CANTOR



EDDIE CANTOR

CLAUDETTE COLBERT



LEW AYRES



RONALD COLMAN



MYRNA LOY



BARBARA STANWYCK



JOHNNY WEISSMÜLLER





MARIE DRESSLER
WALLACE
BEERY



STAN LAUREL



OLIVER HARDY



LIONEL
BARRYMORE
JOHN BARRYMORE



TRE FAMOSE COPPIE - TROIS COUPLES FAMEUX
THREE FAMOUS COUPLES

ANN HARDING



HELEN HAYES



FAY WRAY



JANET GAYNOR



MARION DAVIES

GIOVANI SPORTIVI AMERICANI

THE SPORTING YOUTH
OF AMERICA

LA JEUNESSE SPORTIVE
AMERICAINE

RICHARD

BARTHELMESS



JOE M. CREA



FRANCES DEE



GARY COOPER



KEN MAYNARD



RUSS COLUMBO



JACKIE COOPER



WILL ROGERS



VICTOR MC LAGLEN



SLIM SUMMERVILLE



CHARLIE RUGGLES



NORMA SHEARER



KAY FRANCIS

*one del Cinema
sueci Augustus
Norma Shearer*

*To Venice and you
Artistic "Radio"*

Kay Francis



RAMON NOVARRO



JOHN GILBERT



CHARLES BOYER



ROBERT
MONTGOMERY



FREDRIC MARCH



JEANETTE MACDONALD



CONSTANCE BENNETT



BETTE DAVIS



LORETTA YOUNG



GEORGE ARLISS



RUTH CHATTERTON



BETTE DAVIS



KATHERINE HEPBURN

IL VISO UMANO
THE HUMAN FACE
LA FACE HUMAINE



LEWIS STONE



GRETA GARBO



PAUL MUNI

FRANCIA - FRANCE

DITA PARLO

PERVAL

MARIE BELL



JEAN VIGO



JEAN DOSTÉ



F. DUVALÈS



RIHANI



AGNIS TAPAEAL



MICHEL SIMON

DANIEL MENDAILLE



LISETTE LANVIN



P. J. DE VENLOO



ARLETTE MARCHAL



SUZANNE RISSLER



NICOLE VATTIER

UNGHERIA

HONGRIE
HUNGARY

GITTA ALPAR



PAUL LUKACS



ILA MÁRY



FRANZ LEHÁR



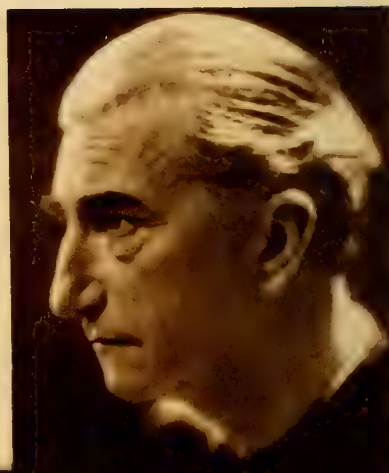
FRANCISCA GAÁL



OLANDA HOLLAND HOLLANDE

G. J. TENNISSEN

JAN MUSCH



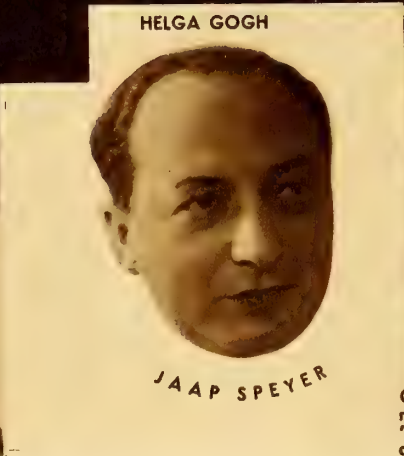
JOH. KAART



HELGA GOGH



JORIS IVENS



JAAP SPEYER

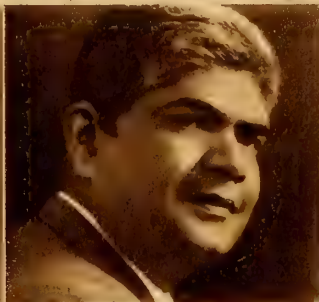


GERARD RUTTEN, regista del film "Acqua morta". - GERARD RUTTEN director of the film "Dead water" - GERARD RUTTEN, régisseur du film "Eau morte"

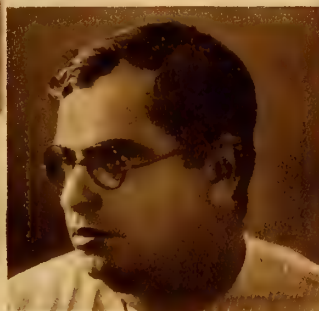
4 REGISTI INDIANI - 4 INDIAN DIRECTORS 4 RÉGISSEURS INDIENS



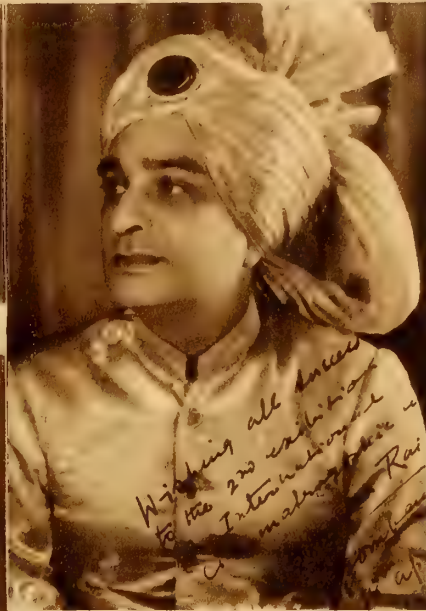
S. B. SHINDE



N. D. SARPOTDAR



A. P. KAPUR



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Camera
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REGISTRAZIONE DEL SUONO
Sound recording
Régistration sonore

MUSICA
Music
Musique



B. G. PENDARKAR



V. B. JOSHI



L. P. WALWALKAR



G. WALWALKAR



P. JIRAJ

DEVIKA RANI



C. S. MODAK



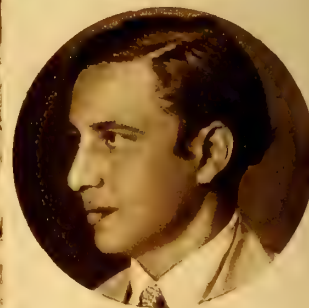
LEELA



MASTER WINAYAK



GHORY



M. R. KALE

Il regista EZRA MIR dei "Sagar Movietone Studios", Bombay
 The director EZRA MIR of the "Sagar Movietone Studios", Bombay
 Le régisseur EZRA MIR dei "Sagar Movietone Studios", Bombay



DIXIT

GLI ATTORI
DI BOMBAY,
KALCUTTA E
KOLHAPUR

BIBOO JSHRAT SULTANA



KEKI BAWA



SABITA DEVI

THE ACTORS
OF BOMBAY,
KALCUTTA
AND KOLHAPUR



G. G. PHATAK

GOHAR



S. B. NAYAMPALLY

LES ACTEURS
DE BOMBAY,
KALCUTTA ET
KOLHAPUR



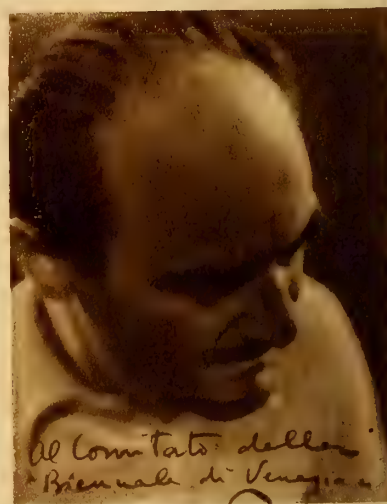
MADHURI



ALIDA MAHAMI

CINEMA ITALIANO

3 REGISTI
3 DIRECTORS
3 RÉGISSEURS



AMLETO PALERMI



CARLO LUDOVICO
BRAGAGLIA



ALESSANDRO
BLASETTI



NELLY CORRADI

MARIA

DENIS



GUIDO CELANO

*Al Comitato di
Fascismo
Bismale*

VITTORIO DE SICA



LEDA

GLORIA



UMBERTO MELNATI



PINA RENZI



TATIANA

Mrs. G. H. Fiske
 Grand Hotel del
 Shoreline
 N.Y.C. Club. P.O.



A black and white portrait photograph of a middle-aged man with dark hair, wearing a dark suit jacket, white shirt, and dark tie. He has a serious expression and is looking slightly to his left. The background is a plain, light-colored wall. There are some faint handwritten markings or signatures visible on the right side of the photo, possibly "Rabana" and "Carmen".

ISA MIRANDA



Dr. G. A. B. de la Hama, Mexico
Washington.



VASCO CRETÌ



GIUSEPPE PIEROZZI



ASSIA NORIS



FRANCESCO COOP



DRIA PAOLA



MARCELLO SPADA



ELIO STEINER

POLONIA - POLAND POLOGNE



JADWIGA SMOSARSKA



JAN KIEPURA



1913



ALMA



TOLA MANKIEWICZ



ADOLPH DYMŠA



FRANCISZEK BRODIEWICZ

*Alle grande Mostra
d'Arte Cinematografica
Venezia, maggio 1934.
Fr. Brodiewicz*



SOPHIE



JADWIGA SMOSARSKA

NAKONECZNA

SVEZIA SVEDEN SUÈDE

ADOLF JAHR

ISA QUENSEL

BRIGIT SERGELIUS

PER-AXEL BRANNER
Regista del film: "Petters-
son & Bendel" - director
of the film: "Pettersson
& Bendel" - régisseur du
film: "Pettersson & Ben-
del"

SEMMY FRIEDMANN



OLAF ANDERSSON, Amministratore delegato
della Svensk Industri

OLAF ANDERSSON, Administrator Delegate
of the Svensk Industri

OLAF ANDERSSON, Administrateur délégué de
la Svensk Industri



II PRINCIPE GUGLIELMO come regista

PRINCE WILHELM as director

Le PRINCE GUILLAUME comme régisseur



GUSTAF MOLANDER



VLASTA BURIAN

JULIA HERRMANNOVÁ

LIDY BAAROVÁ

Walter Burian

*She met me down last year
in London in a restaurant
and she was very beautiful
and very young
Lidy Baarová*

CECOSLOVACCHIA

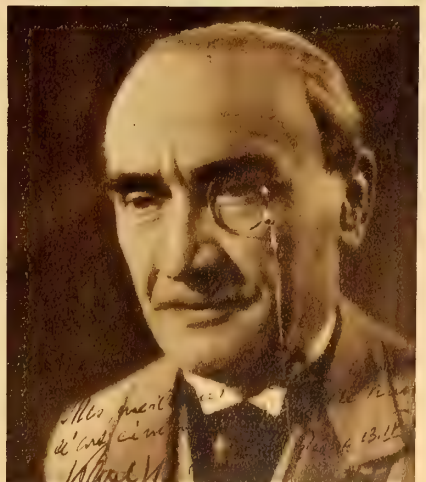
DUE REGISTI: - TWO DIRECTORS: - DEUX RÉGISSEURS:

GUSTAV MACHATY

KAREL PLICKA



*XX Biennale
première 2000
G. Machaty
1934*



KAREL HAILN

*M. Machaty
13.11*

TURCHIA TURKEY TURQUIE

VASFI RIZA BEI



FERIHA TEVEIK HANIM

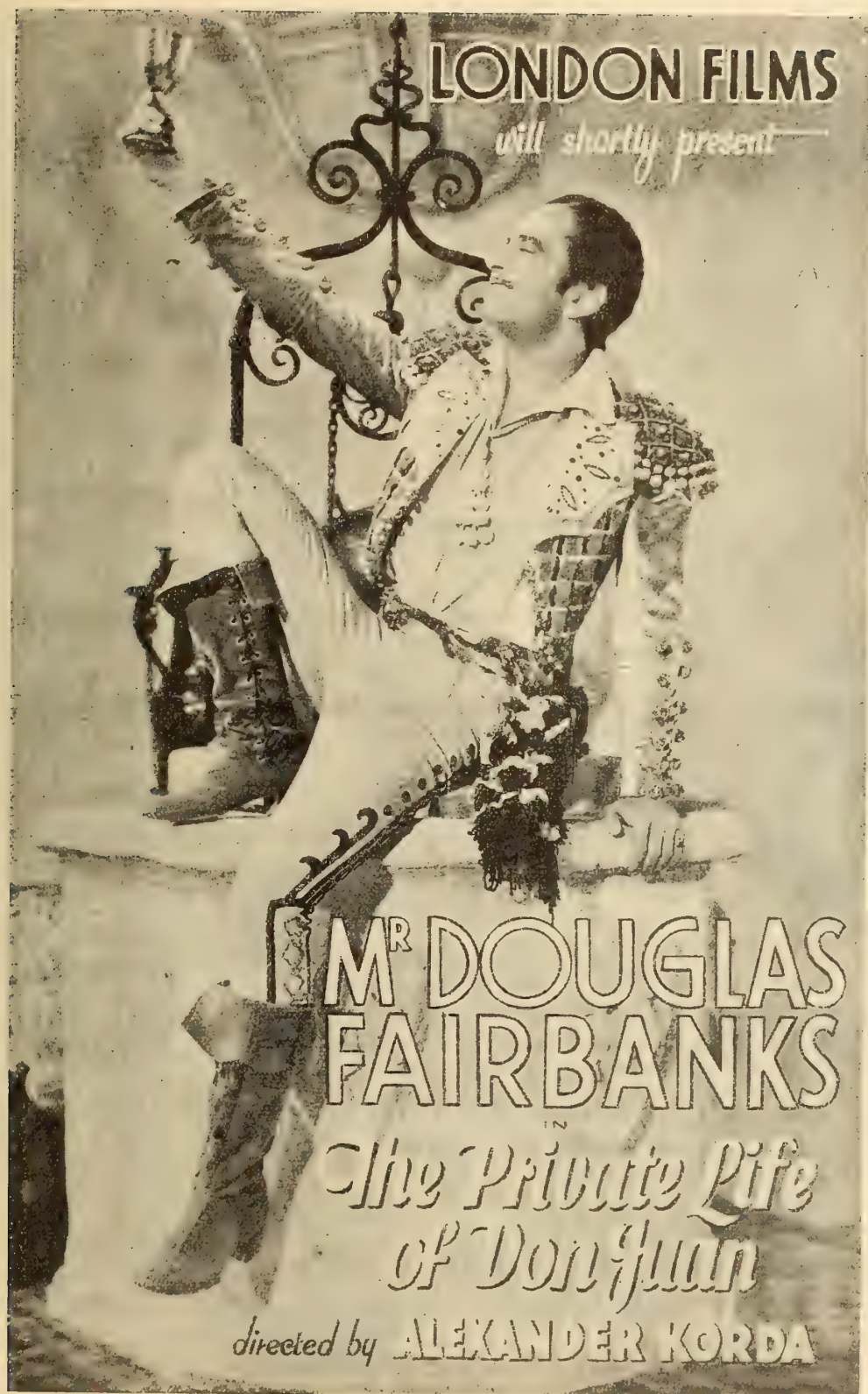
BEHZAT HAKI BEY

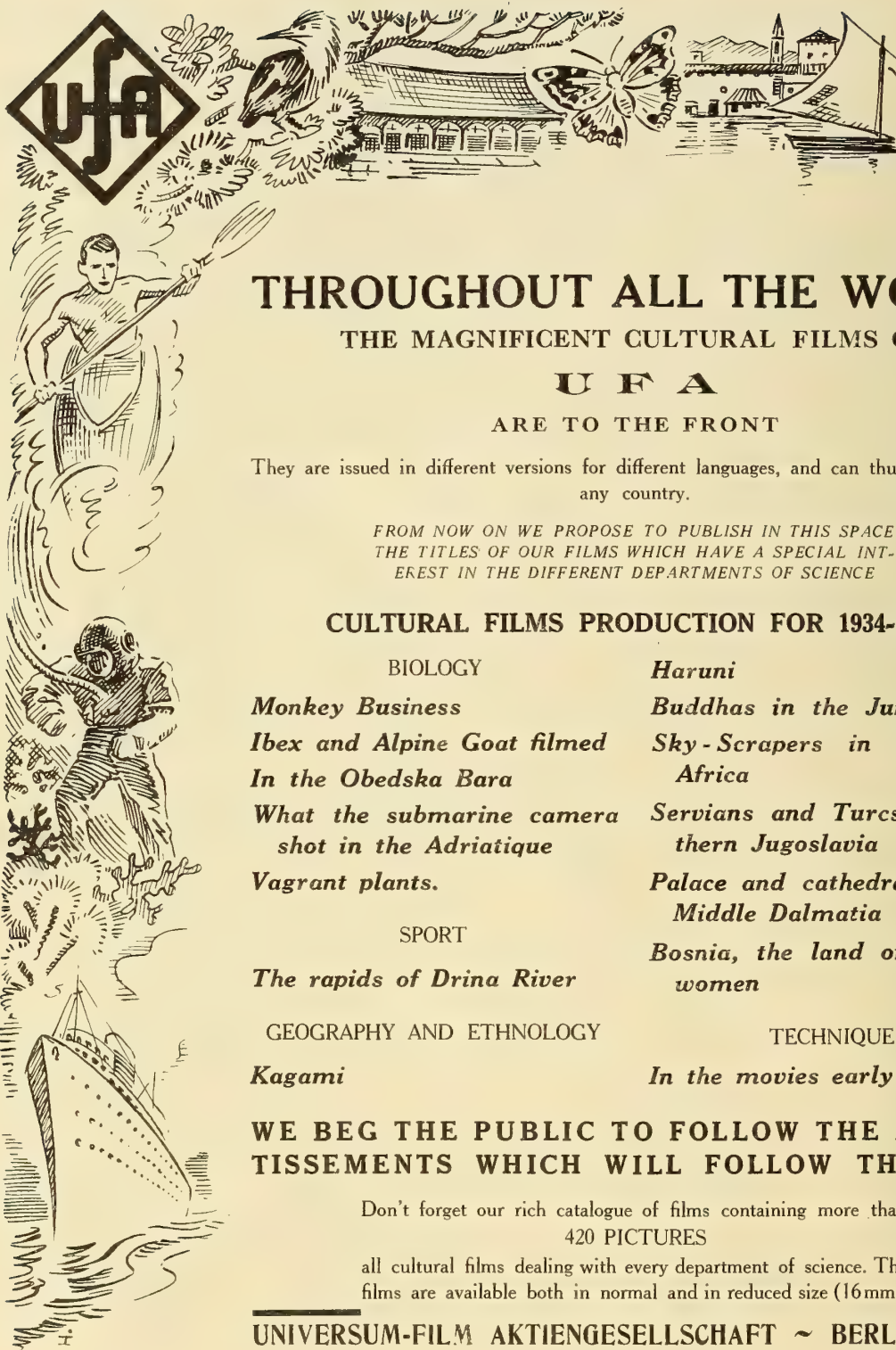
FERDI TAYFUR BEY



HAZIM BEY







THROUGHOUT ALL THE WORLD

THE MAGNIFICENT CULTURAL FILMS OF

U F A

ARE TO THE FRONT

They are issued in different versions for different languages, and can thus be shown in any country.

FROM NOW ON WE PROPOSE TO PUBLISH IN THIS SPACE
THE TITLES OF OUR FILMS WHICH HAVE A SPECIAL INTEREST
IN THE DIFFERENT DEPARTMENTS OF SCIENCE

CULTURAL FILMS PRODUCTION FOR 1934-1935

BIOLOGY

Monkey Business

*Ibex and Alpine Goat filmed
In the Obiedska Bara*

*What the submarine camera
shot in the Adriatic*

Vagrant plants.

Haruni

Buddhas in the Jungles

*Sky-Scrapers in Southern-
Africa*

*Servians and Turks in Southern
Jugoslavia*

*Palace and cathedrals in
Middle Dalmatia*

*Bosnia, the land of veiled
women*

SPORT

The rapids of Drina River

GEOGRAPHY AND ETHNOLOGY

Kagami

TECHNIQUE

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KRAUSENSTRASSE 38/39.**



The **U.F.A.**, the largest cinema producers in Germany present to the Second International Film Congress in Venice held in August 1934 the talking picture which won the National German prize for this year.

FLÜCHTLINGE

(AT THE END OF THE WORLD)

Scenario: **GERHARD MENZEL**

Scenic Director: **GUSTAV UCICKY**

Producer: **GÜNTHER STAPENHORST**

with

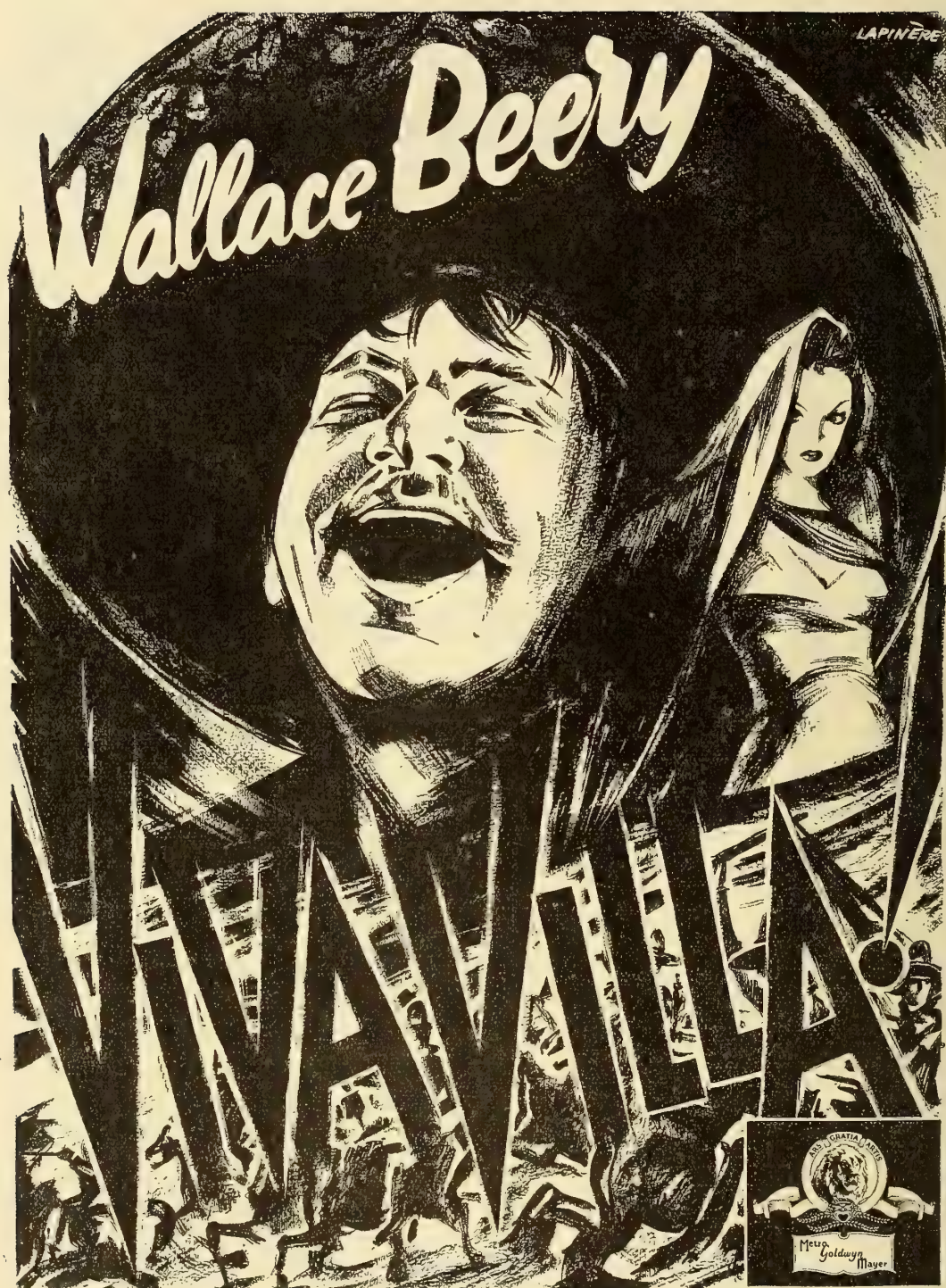
**HANS ALBERS, KÄTE V. NAGY,
EUGEN KLÖPFER, IDA WÜST**

The **UFA** has ready a large output of documentary sound films issued both in German and international versions which are suitable for presentation in all countries of the world.

The International Review of Educational Cinematography makes a regular feature of news items and reports on these documentary films.

UNIVERSUM FILM AKTIENGESellschaft

BERLIN, SW 19, Krausenstrasse, 38/39





I primi films del decennio Metro

JEANNETTE MAC DONALD
RAMON NOVARRO

IL GATTO E IL VIOLINO
Regista : WILLIAM HOWARD

ALICE BRADY
MAUREEN O' SULLIVAN
FRANCHOT TONE
PHILIPS HOLMES

FIGLIA D'ARTE
Regista : CHARLES BRABIN

ROBERT MONTGOMERY
MADGE EVANS
NAT PENDLETON

AMANTI FUGGITI
Regista : RICHARD BOLESLAWSKI

JEAN HARLOW
LEE TRADY

ARGENTO VIVO
Regista : VICTOR FLEMING

MARION DAVIES
ONSLow STEVENS

PEG DEL MIO CUORE
Regista : ROBERT E. LEONARD

STAN LAUREL
OLIVER HARDY
CHARLEY CHASE

I FIGLI DEL DESERTO
Regista : WILLIAM A. SEITER

JOAN CRAWFORD
CLARK GABLE
FRANCHOT TONE

LA DANZA DI VENERE
Regista : ROBERT Z. LEONARD

WARNER BAXTER
MYRNA LOY

**IL CASO
DELL'AVVOCATO DURANT**
Regista : W. S. VAN DYKE

STAN LAUREL
OLIVER HARDY

PERCHÈ LAVORARE

JOHNNY WEISSMULLER
MAUREEN O' SULLIVAN

TARZAN E LA COMPAGNA
Regista : CEDRIC GIBBONS

MYRNA LOY
CLARK GABLE
ELIZABETH ALLAN
OTTO KRUGER

UOMINI IN BIANCO
Regista : RICHARD BOLESLAWSKI

NORMA SHEARER
ROBERT MONTGOMERY

RIP TIDE
(titolo provvisorio)
Regista : EDMUND GOLLING

FUORI SERIE

Garbo
LA REGINA
CRISTINA

*La vostra nuova
"età dell'oro"*

Produzione 1934-35 della



Warner Bros. First National Films S. A. I.

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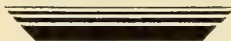
BOLOGNA - Via Galliera 6a - tel. 22476.
 FIRENZE - Via dei Medici 6 - tel. 26746.
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 NAPOLI - Calata S. Marco ai Ferrai - tel. 31863.

Questa casa parteciperà alla II^a MOSTRA INTERNAZIONALE CINEMATOGRAFICA DI VENEZIA col capolavoro dei "classici dello schermo"

"Wonder Bar"

*un film elegante ed avvincente tratto dalla famosa operetta di
 Geza Herozeg, Karl Farkas e Robert Katscher ~
 Diretto da Lloyd Bacon ~ Interpretato da Dieci grandi attori
 come :*

**AL JOLSON ~ DOLORES DEL RIO ~
 RICCARDO CORTEZ ~ KAY FRANCIS
 ~ DICK POWELL ~ FIFY D'ORSAY ~
 HAL LE ROY ~ RUTH DONNELLY
 ~ GUY KIBBEE ~ HUGH HERBERT**



***La più brillante affermazione 1934-35
 della***

WARNER BROS. FIRST NATIONAL

Warner Bros. First National Films

PRESENTS

WONDER BAR

Directed by **LLOYD BACON**

to the 2nd Venice International Exhibition of Cinematographic Art



**Al Jolson - Dolores Del Rio - Dick Powell - Ruth
Donnell - Kay Francis - Ricardo Cortez -
Guy Kibbee - Fifi D'Orsay - Hal Le Roy
Hugh Herberth**

10 STARS - A FAMOUS OPERETTA - 200 GIRLS

A CLASSIC OF THE SCREEN 1934-35



Paramount

• 1934 - 35 •

L'IMPERATRICE CATERINA

CON

MARLENE DIETRICH

DIRETTA DA J. VON STERNBERG

Cleopatra

CON

CLAUDETTE COLBERT

DIRETTA DA CECIL B. DE MILLE

La morte in vacanza

dalla omonima commedia italiana di ALBERTO CASELLA

Regista MITCHEL LEISEN

che diresse "Il canto della culla,,

FREDRIC MARCH

EVELYN VENABLE

GUY STANDING

KENT TAYLOR

Anna Sten

in una produzione di

Samuel Goldwyn

Nanà

(Dal romanzo di Emilio Zola)

con

LIONEL ATWILL

RICHARD BENNETT

MAE CLARK

PHILLIPS HOLMES

MURIEL KIRKLAND

Regia: **Doroty Arzner**

Esclusività: **Artisti Associati**



NOVELLA-FILM

ha realizzato per lo schermo il romanzo di **SALVATOR GOTTA**

La Signora di tutti

È la turbinosa vita di una fascinatrice, che rimane ingenua e innocente, triste e inquieta dietro l'apparenza felice della sua esistenza. E poichè, malgrado tutto, non potrà avere il vero e puro amore, la sua vita rovina. Il film prospetta, attraverso scene intensamente drammatiche, una verità altamente morale, e cioè che l'amore non deve essere istinto e sensualità, ma sentimento e dovere nel matrimonio
 _____ coronato di figli _____

~ La vita della protagonista si svolge sullo schermo ~
 come lei stessa la rivive sotto l'influsso della narcosi.

Regista: **MAX OPHÜLS**

Interpreti principali: **ISA MIRANDA e MEMO BENASSI con
 TATIANA PAVLOVA**

Altri interpreti: **Nelly Corradi, Lamberto Picasso, Federico Benfer, Franco Coop, Mario Ferrari, Luigi Barbieri, Carlo Lombardi, Mattia Sassanelli, ecc.**

Musiche del Maestro: **Daniele Amfitheatroff**

Scene dell'architetto: **Giuseppe Capponi**

Operatore: **Ubaldo Arata**

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JANE BAXTER PAUL GRAETZ WILLY EICHBERGER

Directed by **PAUL L. STEIN**

TO THE

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"YOU MADE ME LOVE YOU"
 ETC., ETC., ETC.,

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LE GRAND JEU

(NOVE DI PICCHE E NOVE DI QUADRI)

DI

JACQUES FEYDER

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di dettaglio e di verità „*



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FORZANO




FONO-ROMA

STAGIONE 1934-35

MAESTRO LANDI

È

UN FILM “FORZANO”



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Produzione “CONSORZIO VIS”

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Y O U T H

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c'est l'adapter aux besoins de l'époque.

J U G E N D

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la réussite.

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AVEC

LISETTE LANVIN - ROBERT ARNOUX - JEAN SERVAIS
et PAULETTE DUBOST



LA
SOCIETÀ ANONIMA PRODUZIONE FILM



PRESENTA DUE GRANDI FILM:

TERESA CONFALONIERI

TRATTO DALLA COMMEDIA DI RINO ALESSI
"IL CONTE AQUILA" pp

CON

MARTA ABBA

ELSA DE GIORGI

DIREZIONE ARTISTICA DI

GUIDO BRIGNONE

NERIO BERNARDI

E

MELODRAMMA

TRATTO DAL DRAMMA

"MELO.,

DI HENRY BERSTEIN

CON

ELSA MERLINI

RENATO CIALENTE e CORRADO RACCA

DIR. ART: ROBERTO LAND e G.C. SIMONELLI



Istituto Nazionale "Luce",

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Regio Decreto 24 Gennaio 1929-VII, n. 122

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<i>Produktionsleitung</i>	AUGUST KERN
<i>Musik</i>	PETER KREUDER und HILMAR GEORGI

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<i>Jakob Burkhardt, ein Bergführer</i>	GUSTAV DIESSL
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<i>Stephan Thöni, Bergführer</i>	STEPHAN BLÖTZER
<i>Bundesrichter Dr. Reymond</i>	CARL DE VOGT
<i>Der Bauingenieur</i>	WERNER DÜBY
<i>Theodor, Bergführer</i>	DAVID ZOGG

u.a.m.

WILHELM TELL

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Gessler . . . CONRAD VEIDT
Stauffacher . . . THEODOR LOSS
Hedwig, Tells Frau EMMY SONNENMANN
Alter Melchtal . . . EUGEN KLÖPPER
Junger Melchtal . . . OLAF BACH

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NEDERLANDSCHE FILMGEMEENSCHAP

dutch associated film producers

THE HAGUE - HOLLAND

P R E S E N T S



**D E A D
W A T E R**

==== (A C Q U A M O R T A) =====

Directed by **GERARD RUTTEM**

IL CONSORZIO "I. C. A. R.,

Industria Cinematografica Artistica - Roma

presenta :

"SECONDA B,"

(Anno Scolastico 1911-12)

**Rievocazione comico-sentimentale
di un periodo antebellico**

INTERPRETI PRINCIPALI: **Sergio Tófano**
Dina Perbellini
Maria Denis
Cesare Zoppetti
Ugo Cèseri

Direttore Artistico: **GOFFREDO ALESSANDRINI**

Direttore della Produzione: **ALDO VERGANO**

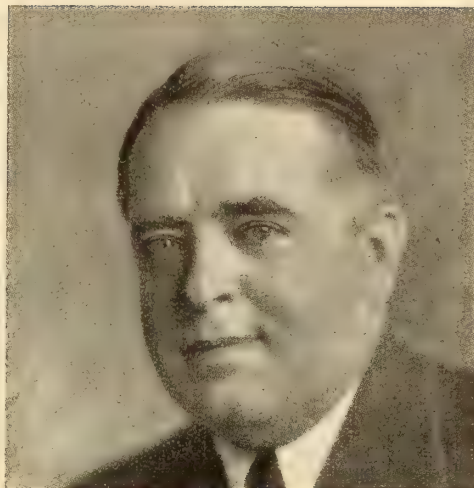
Costumi di **Gino Sensani** - Scene di **Gastone Medin**

Fotografia di **Carlo Montuori**

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 presenterà
 una Produzione
 WINFIELD SHEEHAN

Un film che porta sullo
 schermo il cammino
 del mondo verso il pro-
 gresso durante tutto un
 secolo.



WINFIELD SHEEHAN

IL MONDO VA AVANTI

con

MADELEINE CARROLL
FRANCHOT TONE
REGINALD DENNY
Raul Roulien ~ Louise
Dresser ~ Josè Mojica
Barry Norton

Regista:

JOHN FORD

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RKO RADIO PICTURES

NEW YORK

PRESENTA ALLA BIENNALE DI VENEZIA

Little Women

dal romanzo di L. M. ALCOTT

con

KATHERINE HEPBURN

JOAN BENNETT - PAUL LUKAS - FRANCES DEE

JEAN PARKER - EDNA MAY OLIVER

Direzione: George Cukor

52 Grandi Films

con i maggiori interpreti dello
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Produzione
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Ginger Rogers	Jimmy Durante
Helen Mack	John Barrymore
Irene Dun	Leslie Howard
Jean Parker	Lionel Barrymore
Karen Morley	Nils Asther
Katherine Hepburn	Richard Dix
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Stabilimenti di produzione: C I N E S

» doppiaggio: PALATINO

» stampa : POSITIVA



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*Alcuni dei principali Cinema:*

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O L I M P I A - GENOVA
C O R S O - MILANO
R O S S I N I - VENEZIA
N A Z I O N A L E - TRIESTE
M E D I C A - BOLOGNA
S A V O I A - FIRENZE
S U P E R C I N E M A - R O M A
A U G U S T E O - NAPOLI
E X C E L S I O R - PALERMO

INDIRIZZO TELEGRAFICO: ANONIMA PITTALUGA

"CITY HUNNIA"

PRESENTA

LA
MARCIA
DI
RÀKÒCZI

REGISTA:

ISTVAN SZEKELY

INTERPRETI:

MARGIT DAYKA

IDA TURAY

PAL YAVOR



POSITIVE **F I L M**

Black & white
and on
tinted base

•

"DUP-FILM,,

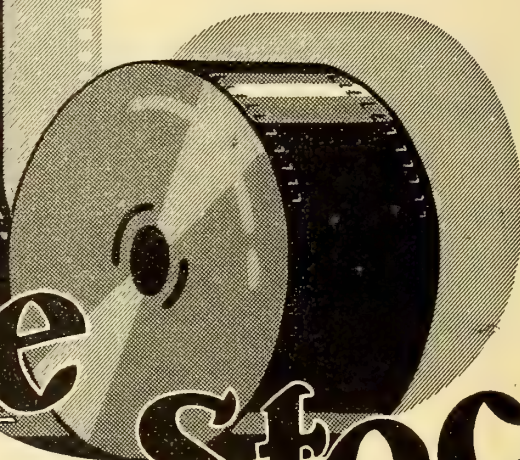
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NEGATIVE **F I L M**

" PANKINE - TIPE G. ,,
" SPECIAL ,,
" EXTRA-RAPID ,,
" KINECHROM ,,
" AEROCHROM ,,
" TROPICAL ,,
" R-FILM ,,

Sound Recording Stock Tf. 3
for Variable-Density Process

Sound Recording Stock Tf. 4
for Variable Area Process



Cine Raw Stock

LUX 9/5^M

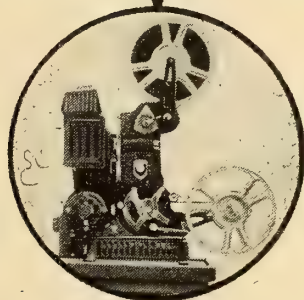
*ricordate
questa*

*sola
parola*



L'apparecchio LUX 9^M/5 è raccomandato da S. E. il Segretario del Partito e dal Ministero della Educazione Nazionale

S.I.C.E.D. SOCIETÀ ITALIANA CINEMATOGRAFIA
EDUCATIVA DIDATTICA
ROMA VIA CRESCENZIO 23



Reifende Jugend

Ein

CARL FROELICH

Film der Europa Filmverleih A. G. mit

HEINRICH GEORGE

HERTHA THIELE

ALBERT LIEVEN

MARIELOUISE CLAUDIUS

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Weltvertrieb: Hisa Film G. m. b. H.

Verleih:

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EIN FILM VON DER GROSSEN
WELT RINGS UM UNS HERUM

EIN TONFILM VON DEN TAUSENDFÄLTIGEN
FORMEN DES LEBENS, DER VERGANGENHEIT
UNSERER ERDE UND DEN WUNDERN DES
WELTALLS, DER DIE RÄTSEL UM UNS AUF-
GREIFT UND IN WUNDERVOLLEN AUF-
NAHMEN AUS DEM LEBEN VON MENSCH,
TIER UND PFLANZE DAS EWIGE PROBLEM
DES STIRB UND WERDE ERÖRTERT.

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ITALIANI

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DISCHI A QUELLO SU COLONNA
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LA PIÙ ACCREDITATA CASA ITALIANA
I PIÙ MODERNI E PERFEZIONATI APPARECCHI

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LA MONOGRAM PICTURES CORP.

S. A. I.

PRESENTA

— La Nave del Mistero

(LE NAVIRE MYSTERIEUX)

Tratto dal Romanzo "Lo Spettro di John Holling" di **Edgar Wallace**

Adattamento di **Wellyn Totman**

Produzione di **A. Paul Malvern**

Interpretano i personaggi del dramma gli Artisti:

Noah Beery (il Capitano Holling) — **Astrid Allyn** (Lila) — **Cornelius Keefe** (Cliff) — **Gustavo von Seyffertitz** (Von Kessling) — **Ralph Lewis** (Crimson) — **Booth Howard** (Downey) — **J. Maurice Sullivan** (Watson) **Gorden de Maine** (Bryson) ed altri di minore importanza.

Regista: **WILLIAM NIGH**

È un film ricavato dal Romanzo di Edgar Wallace. Ha avuto per regista un gran nome: **WILLIAM NIGH**. Vi è dimostrata la più moderna applicazione delle onde Herziane. Una nave è guidata da terra a mezzo di un apparecchio inventato dal Dott. Crimson (attore Ralph Lewis).

L'interesse è immenso per la Marina, e gli Armatori della nave: "**GUTHERIC**" tentano gli esperimenti che da prima riescono. Senonchè agenti nemici che sono anche sulla nave si adoperano per conoscere e distruggere l'efficacia dell'apparecchio.

Si assiste con ansia ad una serie di crimini, i cui autori restano ignoti; i sospetti cadono sui principali personaggi di bordo e finalmente, dopo un'attesa piena d'interesse ed apprensione, lo spettatore viene nel modo più inaspettato a conoscere il colpevole.

Fra questi orrori vi è un piccolo romanzo d'amore: la giovane e graziosa infermiera di bordo contesa da due ufficiali.

10 Superfilm di grande classe - 10 film eccezionali.
Questo è il programma che il Consorzio E. I. A.
presenta agli esercenti d'Italia per la stagione
1934-35

10 film di produzione "Columbia,, e 10 film di
produzione "UFA,, selezionati sul complesso di 56
film prodotti dalle due grandi editrici

Signora per un giorno

DIR. FRANK CAPRA

May Robson - Warren William

X X S e c o l o

DIR. HOWARD HAWKS

*Carole Lombard
John Barrymore*

Accadde una notte

DIR. FRANK CAPRA

*Clark Gable
Claudette Colbert*

T r a m o n t o

DIR. DAVID BURTON

*Elissa Landi
Frank Morgan*

Vicino alle Stelle

DIR. FRANK BORZAGE

*Spencer Tracy
Loretta Joun*

I l V o r t i c e

DIR. ROY W. NEILL

Jack Holt - Jean Arthur

A m i a m o c i

DIR. DAVID BURTON

Edmund Lowe - Ann Sothorn

Donna di classe

DIR. MARSHALL NEILAN

*Colleen Moore
Alexander Kirkland*

L'età Pericolosa

DIR. WILLARD MACK

Jean Parker - Ben Alexander

N e b b i a

DIR. ALBERT ROGELL

Mary Brian - Donald Cook

O r o

DIR. CARL HARTL

Brigitte Helm - Hans Albers

**La Principessa
della Czarda**

DIR. GEORGE JACOBY

*Martha Eggerth
Paul Horbiger*

Vittorio e Vittoria

DIR. REINHOLD SCHUNZEL

*Renate Muller
Hermann Thimig*

F u g g i a s c h i

DIR. GUSTAV UCICKY

Hans Albers - Kathe von Nagy

Godiamoci la Vita

DIR. HANS STEINHOFF

*Dorit Kreisler
Wolfgang Liebeneiner*

Bambola di carne

DIR. HANS STEINHOFF

*Rose Barsony
George Alexander*

Guerra di Walzer

DIR. LUDWIG BERGER

*Renate Muller
Willy Fritsch*

Sogno biondo

DIR. PAUL MARTIN

Lillian Harvey - Willy Fritsch

Addio giorni felici

DIR. JOHANNES MEYER

*Brigitte Helm
Wolfgang Liebeneiner*

L'inferno dei Mari

DIR. GUSTAV UCICKY

Rudolf Forster - Else Knott

STADIO

Produzione "ARDITA" S/A

Roma, Via Nazionale, 54

è un film di F. CURIONI e G. RIGHELLI

regia di
CARLO CAMPOGALLIANI
con GIORGIO FERRONI

soggetto di
ROMOLO MARCELLINI
e sceneggiatura di
GINO NERVI

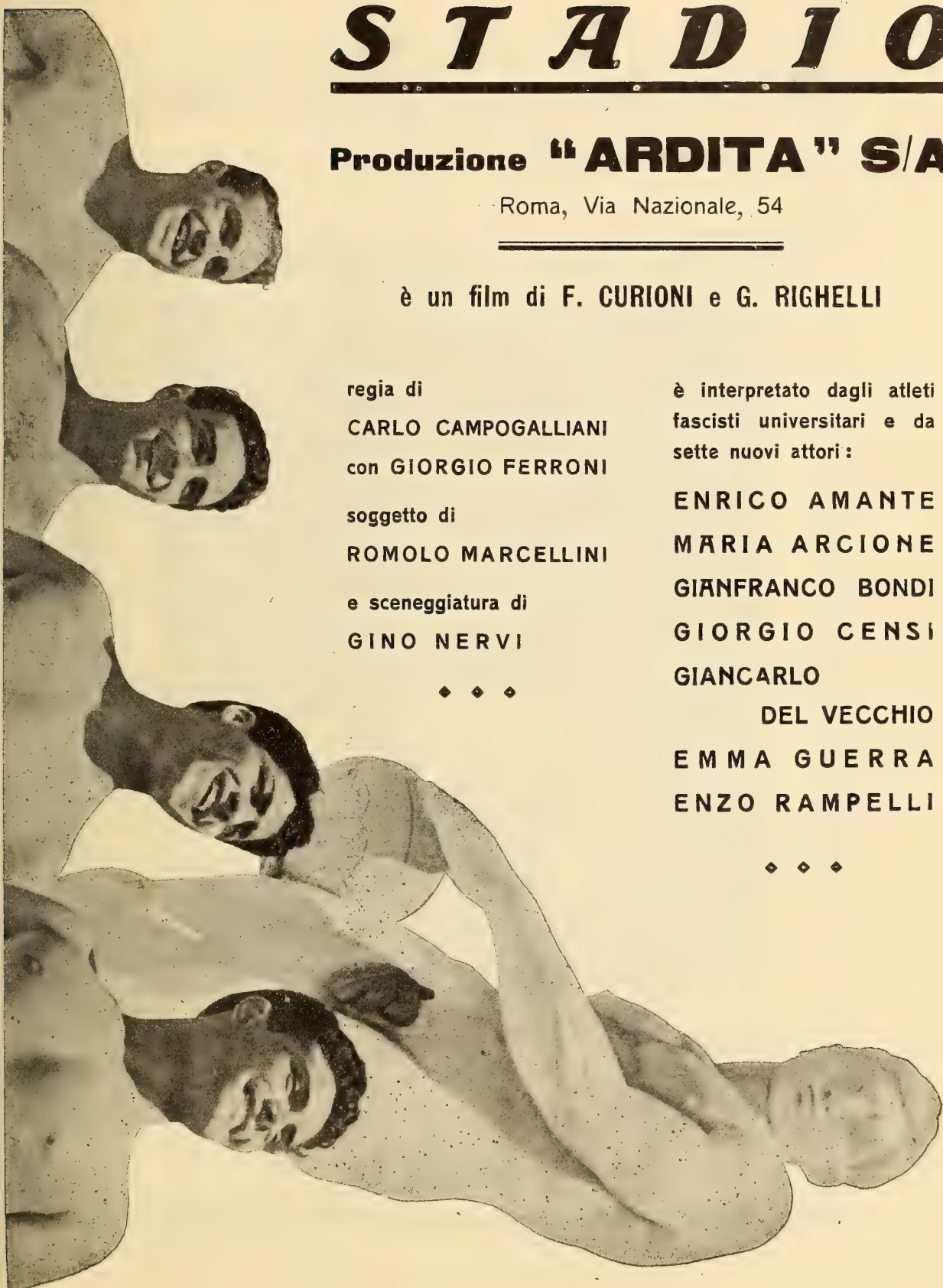
◆ ◆ ◆

è interpretato dagli atleti
fascisti universitari e da
sette nuovi attori:

ENRICO AMANTE
MARIA ARCIONE
GIANFRANCO BONDI
GIORGIO CENSI
GIANCARLO

DEL VECCHIO
EMMA GUERRA
ENZO RAMPELLI

◆ ◆ ◆



LE INDUSTRIE CINEMATOGRAFICHE ITALIANE

PRESENTERANNO QUEST'ANNO IN ITALIA

LA MIGLIORE

PRODUZIONE UNIVERSAL 1934

"L'UOMO INVISIBILE"

Interpreti :

CLAUDE RAINS
WILLIAM HARRIGAN
GLORIA STUART

Direttore :

JAMES WHALE

"A LUME DI CANDELA"

Interpreti :

ELISSA LANDI
PAUL LUKAS
NILS ASTHER

Direttore :

JAMES WHALE

"IL GATTO NERO"

Interpreti :

BORIS KARLOFF
BELA LUGOSI
JACQUELINE WELLS

Direttore :

EDGAR ULMER

"SOLTANTO IERI"

(titolo provvisorio di: ONLY YESTERDAY)

Interpreti :

MARGARET SULLAVAN
JOHN BOLES

Direttore :

JOHN M. STAHL

"E ADESSO, POVER' UOMO?"

(titolo provvisorio di: LITTLE MAN, WHAT NOW?)

Interpreti :

MARGARET SULLAVAN
DOUGLAS MONTGOMERY

Direttore :

FRANK BORZAGE

"GITA IN CAMPAGNA"

(titolo provvisorio di: CROSS COUNTRY CRUISE)

Interpreti :

JUNE KNIGHT
LEW AYRES

Direttore :

EDWARD BUZZELL

"L'AVVOCATO"

(titolo provvisorio di: COUNSELLOR AT LAW)

Interpreti :

JOHN BARRYMORE
BEBE DANIELS
DORIS KENYON
MELWYN DOUGLAS
ONSLow STEVENS

Direttore :

WILLIAM WYLER

"BOMBAY MAIL"

Interpreti :

EDMUND LOWE
SHIRLEY GREY

Direttore :

EDWIN L. MARIN

"L'AMOR MIO SEI TU"

Interpreti :

JEAN MURAT
EDVIGE FEUILLÈRE

Direttore :

GEZA DE BOLVARY

"UNA DONNA AL VOLANTE"

Interpreti :

HENRY GARAT
LISETTE LANVIN

Ingg. BUINI & GRANDI

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SETERIE VELLUTI LANERIE

LA PIÙ IMPORTANTE CASA D'ITALIA PER LA
VENDITA DEI MIGLIORI TESSUTI PER SIGNORA

N O V I T À
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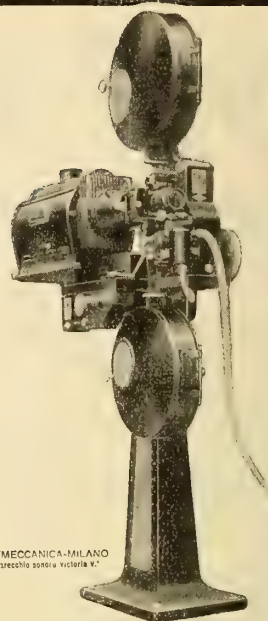
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LEAGUE
OF
NATIONS



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CINEMA AND TEACHING

BY

E. Duvillard

DIRECTOR OF SCHOOLS, ZURICH

Introduction. Lantern slides and motion pictures have not yet had a decisive influence on teaching, for the reason that the didactic art evolves with extreme slowness.

We learnt the concrete study of reality from Bacon. Since then we have perfected our systems of research; we have opened our eyes to the infinite. We have registered natural phenomena, and have been able to reproduce them in their dynamic state. It would certainly seem strange that all our progress has not transformed the art of teaching.

That it has not is due to the fact that the mechanical apparatus capable of resuscitating the past has not found, in the domain of teaching, an artist capable of giving it a soul. It will only be when the cinema can be used as a musician plays on his instrument that we shall see how and in what degree it will be possible to awaken the pupils' intelligence and open up new visions for teachers.

It would therefore be out of place to forecast the function of the scholastic film, fix the limits of its applications, and state the laws which it will impose on pedagogy. Our task today is solely to seek the best means of utilizing it, without any pretence of establishing a definite and final formula in the matter.

If the influence of the scholastic cinema has penetrated so slowly, it is because man is not master of his own thoughts. He modifies their course and form very slowly and

such changes as occur are arrived at only after a long and often painful process of adaptation.

To create an approximate coincidence between mental images and words which translate them demands a painful effort, since the correspondence between things and words, though simple enough in appearance, is not easily accessible to the human intelligence.

Although man is continually seeking to free himself from it, he tends, by his very nature, to be a victim of verbalism. In order to escape a slavery of this kind, he tries in every way to fix his errant thoughts, and among all the means so far suggested the motion picture seems the one likeliest to give him the independence he desires. It is the likeliest and fittest means because it permits of reality being submitted to the will to be coordinated, disciplined, accelerated, slowed down, visually evoked and all without the necessity of words which are a perpetual source of misunderstanding.

Forty Years' Experience. From the year 1895, which was the date of the first motion picture show, the importance of the didactic cinema has been constantly recognized. The works written about it, which have been oftener dythyrambic than critical, have generally made the double error of thinking it subject to the laws which govern the theatrical cinema, and think that its educational value depends on the mobility of the images.

The scholastic cinema in general follows two methods, the direct and the indirect method.

(a) *Direct Method* - Let us consider a number of pupils who possess more or less similar characteristics of age, sex, intellectual and scholastic development who are subjected to teaching of the same subject with the traditional method and with the cinematographic method and let us compare the results.

The most interesting studies of this kind have been made in Norway, England and the United States. In the last country, the Eastman inquiry proved particularly notable for its extent and the number of pupils who took part in it.

The conclusions favourable to the cinema demonstrated that children remember things shown on the screen better than facts presented to them with different systems, even when accompanied with photographs, drawings and mural designs and tables.

There would be no point in despising these results, but we must be careful in assigning them authentic scientific value. We are dealing with a system of inquiry which has not a proper guaranteed control, and conclusions may often be based on misunderstandings.

In the first place, there is the matter of teaching. When writers speak of the results of film teaching, they are referring to those facts, cognition of which is acquired by looking at the screen, and they propose to reduce teaching to this simple vision of images. Teaching, on the contrary, is something quite different. It consists of a combination of methods suitable for the acquisition of notions, such methods being properly inter-connected. It is only in this sense that we may speak of teaching grammar, arithmetic, history or natural science. The object of teaching is not the acquisition of certain notions, but the acquirement of an intellectual technique, through which, when the pupil is freed of the tutelage of school, he will be able to reflect and study by himself.

Another source of misunderstanding is

the film. When reference is made to it, it is generally allowed to be understood that the film in question is quite a special picture made for a given purpose. This is generally untrue today, for up to the present time the so-called teaching films are simple documentary pictures or fragments of documentaries put together in a haphazard fashion.

We need not be surprised then if they arouse in children's minds livelier impressions than those evoked by coloured pictures. The impression depends largely on the novelty of the system, but it is by no means established that such impressions are lasting. It is, moreover, possible that films of this kind, which are unsuited to strict teaching, do not give the pupils that amount of intellectual benefit which they might obtain from a succession of lessons.

One thing, however, may be stated. The immediate remembrance of facts or phenomena given by the cinema method of teaching seems livelier than the record of the same obtained by the ordinary oral method. It remains to be seen if the cinematographic presentation of a totalitarian teaching method by film will give better results than other systems. It is also a point if film teaching can supply mentalities with the necessary means for prosecuting, without other aids, a study of a really personal character.

The conclusion of this rapid examination of the direct method is that we do not at present really know the advantages that may be derived from film teaching. At the most, the memory of the images, especially the moving images, may seem to be profounder than any aural or visual memory of the same obtained by means of books or oral teaching.

(b) *The Indirect Method* - This is practised in the form of inquiries and symposia organized among educationists and students. It does not set out to arrive at mathematically correct results, but canvasses opinions, leaves technical questions untouched which can only be settled by means of

other more careful and exact methods. It illustrates unsuspected angles of the position.

The latest of these symposia was that carried out under the aegis of the Review of Educational Cinematography among the body of Italian teachers, and is the prelude to a similar but vaster inquiry to be organized among the teachers of the entire world. The inquiry among the Italian teaching faculty was organized, examined and reported on with every care. It will be worth while therefore to examine its results.

The conclusions thereon made by Dr de Feo of the I.I.E.C. of Rome are worthy of the most careful consideration:

(1) *In the present state of things and in view of the curriculum of modern teaching systems, it is not possible to conceive of a pure and simple substitution of the present system of teaching by a master with film teaching.*

The prudence of this conclusion is worthy of comment. The progress made by the teaching film has to a large extent been rendered nugatory by the exaggerations of certain over zealous enthusiasts, and also by the obstinate opposition which such ill judged optimism has aroused in others. To substitute film teaching for ordinary oral and written teaching given by a master or mistress would mean substituting mechanical teaching for live human instruction. It is impossible to arrive at this point. The teacher's influence is always necessary, and pedagogy cannot be administered in tins. At the same time there is every likelihood that certain themes treated cinematographically will prove useful to both teacher and pupil. In the case of the teacher, they will relieve him of the necessity of presenting the subject — often badly — owing to lack of means. If the film is a well made one, it will furnish the plan for the lesson, giving the teacher the possibility of presenting given facts as definite and beyond discussion if the film has been made by an expert on the subject. For the pupil, the film will present in a vivid fashion things which any verbal description would be in-

capable of supplying, teaching the student to observe and classify his observations.

Cinematographic technique will renew methodology since, by rendering its intellectual data objective, it will make a regular language of the visual image.

It will not be by any unique and special virtue of the motion picture that this state of things will be brought about, but it will come through the new ideas which this technique will impress on our spirit. Obligated to develop in a form intolerant of obscurities and misunderstandings, teaching will have to follow other methods, and didactics must become precise.

(2) *Cinematography is an auxiliary didactic means of outstanding value for some subjects, especially geography, science, history and object lessons.*

Why call a didactic method auxiliary when it can be used for five subjects? One might go so far as to say that auxiliary didactic means do not exist. If there were any, the cinema would not be able to be part of such. With its purely scientific technique of slow motion and accelerated running of pictures, with the possibilities it derives from cutting and mounting, with the infinite variety of its rhythms, it cannot be regarded solely as an auxiliary. Nothing that has been done by the cinema in the domains of history or natural science gives us the right to affirm the superiority of the motion picture in these subjects, though the time would appear to be near when the film may claim victories in these fields of knowledge.

The motion picture then will not be an auxiliary didactic means, but it will furnish a pretext for transforming teaching in its curricula, methods and systems, in its material and spiritual essence. Or will it fail here? One has seen similar failures in other fields.

(3) *Film teaching, within the limits of an auxiliary didactic means, must take account of the age and class of the student, and as far as is possible of sex and of special programmes for determined branches of teaching.*

Here we are faced with the central problem of the cinema. Teaching films cannot be made without taking due account of the pupils for whom they are intended. How is this to be done? We must consider the vast number of films which such a system would render necessary and their high cost, though we have grounds for hoping that a production adapted to the necessities of teaching — in this case it would be necessary to begin by fixing a formula for international-scholastic film — will find a way which the present scholastic picture as we know it today has not yet succeeded in finding.

(4) *The filmed lesson is more easily assimilated by the students, and therefore its repetition gives better results than oral lessons.*

This is too hazardous a conclusion. Everything leads us to believe that in reality a good cinema lesson may be superior to a good oral lesson but, since good cinema lessons do not yet exist, their superiority cannot be postulated in any definite manner.

(5) *Sub-titles or explanatory script should be continued in teaching films provided they are clear and sensible.*

This is a rational solution of a technical question. At the same time it will be as well perhaps to examine the point a little more thoroughly in order to determine the proportion of sub-titles to film length, and to fix the duration of the lesson so that the sub-titles may be read easily and without strain. This time varies with age. This is a technical question that is easily solved, but which has not been sufficiently examined up to now.

(6) *Brochures and leaflets of an explanatory character could prove very useful not only for the students and but also for educationists. They allow pupils to learn better the things being illustrated on the screen.*

(7) *It is not possible under the present condition of things to substitute scholastic manuals with cine-scholastic text books. If we want to introduce the latter, they must only be used as a form of auxiliary help for*

the school text books, something to complete the ordinary routine of teaching.

These are conclusions which pose a fresh question, that is, the matter of the cinematographic text-book or volume. A number of preliminary points must be previously examined. We will re-examine the question later when touching the fundamental principles of cinegraphic teaching.

(8) *The animated projection is much more efficacious as a didactic means than the still slide.*

This too seems to us a daring conclusion. There are so many elements to be considered that we cannot accept it without the necessary limitations. Some subjects are more adapted to the motion picture than others. Others give the best results with lantern slides. We should also bear in mind that the last word has not yet been said in the production of lantern slides. Projectors have been greatly improved, but too little pains has been taken with the slides themselves, while methodology has not been duly considered, nor has due importance been attached to the reactions which the images are capable of producing on the children's minds. It will only be when the motion picture and the slide have attained a greater degree of perfection than they enjoy at present that we shall be in a position to institute a proper comparison between them.

(9) *The sound or talking film, but especially the sound film, possesses important advantages as compared with the silent film.*

We cannot know the advantages of the sound film before having a precise definition of it and before having at our disposal genuine teaching sound films. It may be that some subjects are better treated in sound than silent versions, but we must not make a general statement to that effect.

(10) *The foregoing is subordinated to the condition that cinema material intended for teaching has been produced by competent organizations and in strict conformity with scholastic curricula.*

Here lies the necessity and justification of this work.

The critical study of the foregoing conclusions leads to the consideration of certain questions which should be examined in order to clear the ground of misunderstandings and errors.

In the first place, if a real teaching cinema does not exist, the best examples of the same allow us to suppose that it will be able to effect a revolution in didactics. If this is not the case, it ought to disappear, or be confined to constituting a costly auxiliary.

The central problem of the teaching film consists in the way we are to adapt it to the various classes of pupils and the different curricula. Any comparison between the motion picture and the slide is impossible today because both of them are in the embryonal stage, and they must arrive at greater perfection before we can judge them.

Cinematographic teaching is strictly connected with the modality of the cinema version.

Again, the scholastic film can only be made by persons well acquainted with teaching requirements and the exigencies of curricula.

Psychological Considerations. The slowness of the progress of the scholastic cinema is explained by the fact that so far very little or no consideration at all has been taken of the psychological conditions attached to this new form of teaching.

Of all the mental functions, the attention is the one it is most necessary to understand in order to assure the motion picture a maximum of efficiency. Wherefore we may lay down as a simple definition: «The attention is that state of consciousness which secures the best results for mental work».

It is necessary to know the best conditions of mental work, if we want to render them easy, and the motion picture can help us in obtaining these results.

From a study of the attention we can see what can be useful to it. We shall consider the essential characteristics without wasting

time in demonstrating the correctness of the ideas we broach. For further explanations we must refer the reader to works by specialists (G. Dumas, *Treatise on Psychology*, Felix Alcan, Vol. 1, p. 846).

(1) *The mind's active capacity is limited and cannot at one and the same time deal with all the instances that are presented to it.*

This capacity varies with age. It is less extensive in the case of children than with adults as also with people of weak intelligence as compared to intellectuals. We must keep this fact in mind in using the scholastic cinema, in producing films and considering their length and system of projection.

Many films leave no impression because they strike the mind from several angles and therefore weary it. The first condition for film teaching is simplicity, a rational choice of subject.

It is really a mistake to think that the mobility of the images illuminates the mind in any special degree.

Filmed images are clearer and better appreciated when isolated and thus stressed. Cinema technique with its close-ups has always believed in this.

(2) *Sentimental interest is one of the bases of attention.*

We cannot lay enough stress on the importance of interest in the field of education. Matters which we connect with ourselves are the really important things, for us. A subject treated by the film or any other auxiliary means must satisfy the requirements of children which can be seen in the interest they manifest for objects, facts or certain ideas. These facts, objects or ideas become interesting to the child when he recognizes or thinks he recognizes in them elements capable of accelerating the development of his *ego*. «A film is not interesting in and by itself; it is interesting in so far as it answers the actual intellectual needs of the spectators. Whence comes the necessity of providing pictures which satisfy the spectator's immediate and remote interests».

(3) *The communion of impressions re-*

ceived in a given moment with impressions already provoked is one of the bases of the attention.

Some pictures arouse *surprise*, a shock which impedes their being properly understood and remembered. It is believed that a film has an intrinsic attraction and that the more unexpected it is, the better it is. The brutal picture clashes with the very possibilities of thought. The value of a teaching film depends less on the excellence of the photographs, the ingenious character of the scenery or the operator's ability than on the preparatory work of the lessons that precede the film and on the choice of the subject. The cinema lesson is like the nucleus of a crystal, round which are gathered the memories that go to the formation of the whole mental picture. We do not know a thing solely because we have seen it represented on the screen. We possess a consciousness of it when other images complete and enrich what is seen on the screen.

IMPORTANCE OF THE SCHEME. — The image, in the psychological sense, is « the prolongation or the reappearance of a sensory phenomenon in the absence of the impressions which occasioned it ». In order that they be recalled, recognized and completed, it is necessary that the images should be connected with the simplest, humblest and most elementary forms, which allow easy identification, deciphering and classification.

« In order properly to understand a lecture, it is necessary to know its scheme and plan. To grasp a film we must seek the scheme in an analysis of the programme. By means of schemes, we learn a lesson or a prayer. We play for position in a game of chess, we understand a demonstration; the scheme does not cease to be a perception ».

« It does not seem that there is ever voluntary attention without perception ». Bergson gives the following description of the primary perception of the image:

« The primary perception of some parts suggests a schematic representation of the

whole and of the relations between the various parts. Developing the scheme or convention in images or memories, we seek to make the recalled images coincide with the perceived images. If we do not succeed in this, we have recourse to another schematic representation ».

In any case, the positive and useful part of our work consists in passing from the scheme to the image which has been perceived. This being the case, the scholastic film should only offer young spectators images to which they have a correspondance in schematized images. The wealth of the schemes varies according to the age, intelligence, culture and experience of the pupil.

Since the mind cannot identify beings or objects without the interposition of a familiar scheme or framework, the teaching cinema should avoid all complicated material and anything likely to cause confusion. It should be simple and suitable for the most intelligent pupils as well as for grown ups. Do you remember having seen technical or industrial films which you did not understand? This happened because you did not possess in your mind any images or conventions in correspondence, because the complicated images did not allow you to do any stylization of your own, to draw from your memory of images those supplementary images which were necessary to make the idea complete for understanding. The motion picture cannot therefore be considered solely as an occasional means, but should form part of teaching, or be included in it. A film that is not carefully prepared is not at all likely to prove useful. Pedagogues' efforts ought to be in the direction of limiting with exactness the cinema's field of action and its occasions of use in certain subjects, its possibilities and limits.

It is a mistake, as we have already said, to suppose that the teaching film should be subjected to the same rules as the documentary picture from which it differs both in method and aims. Since the didactic cinema tends to impress on the mind images that are well connected one with another and

to create coherent groups of images to connect which judgment is required, careless methods are not likely to be sufficient.

Even more than the book, the motion picture must take account of the means that are best adapted for rendering it understandable and subjecting it to judgment. It cannot rely on vague words, but, on the contrary, must present its facts without altering them when it does not make use of tricks and illusions. It must coordinate them and put them in relation and order, removing all secondary facts which are likely to obscure the central phenomenon.

FANTASY. — This is a word which cannot belong to the psychological dictionary on account of having infinite meanings.

We are not referring to fantasy or fancy as the faculty of representing objects which cannot ordinarily be seen, of feeling a new presence in the spirit, a renewed perception of an absent object.

Pupils of backward intelligence suffer from atrophied imaginations. They do not picture for themselves things that are immediately before their eyes, or if they do so they must make an effort of memory which brings about a slowness in reflection and the conception of ideas. According to the theory of schematicism it may be stated that they have a poverty of « schemes » or frames, that is, they have a poverty of fundamental images or they have images or groups of images which are too complex. This old statement has led teachers to show images and to reproduce them in books, and in this way to decrease the number of descriptions. The object or its picture are necessary for teaching purposes when it is desired that the pupil shall translate the words which are repeated to him. Out of fear of deforming the sense of the words, images are shown the pupil. Without these images, teaching would only be a misunderstanding. They are used to enrich the store of images and « frames » but, with their assistance, interpretations vary, memories disappear, physiog-

nomies are modified and characters transformed. The instability of the spirit is such that we must do all in our power to counterbalance it.

To illustrate this, the following experiment has been made. Various lessons on the manufacture of pencils have been given, each helped out with a new demonstration, either documentary or in the form of an object lesson. The first lesson consisted in the verbal description of the manufacture, the second of a similar description supplemented with samples and photographs of factories. The third lesson consisted of a film of the object under study and the fourth used all the methods hitherto employed followed by a visit to the factory. It might be expected that the pupils from 14 to 15 years of age would not have made any mistakes. On the contrary, however, despite the care of the method, in 30 per cent of the cases, there were numerous errors and oversights which proved the difficulty in absorbing the images.

The motion picture cannot at the present stage cure scholars affected with intellectual laziness. Carefully employed it can only do something to ameliorate their condition.

Images and words. - We think with words, and it is in fact characteristic of man that he has two « schemes » or frames as his disposal; one a real one given by the image, drawing or representation of the object and an artificial or nominal frame in the word. It is well known that often enough one or the other escapes us and the word cannot be given its image or we cannot find the word for the mental picture.

We have spoken of two languages; the language of images and the language of words. The existence of the one depends on the existence of the other. We cannot understand the one without possessing the other. Children do not understand the language of images when their minds do not contain frames or systems for translating them. It is clear that images lead us to words and from words to argument and reasoning. Even the simplest kind of film is not

always well interpreted by children, because the words which are necessary to express their thoughts are not handy to their minds. Not being able to refer to conventional mental schemes or correspondences useful for this form of intellectual translation, children do not as a rule take in moving pictures and are often tired by them. It is this lack of verbal equivalents for the images of films that causes children to lose interest in them.

It has been supposed on this account that the motion picture is not adapted for very young children. This is a mistake. We must not overdo its use for young children for physiological reasons, but it can usefully be employed in primary schools if it speaks an infantile language and presents the simplest and least complicated kind of pictures. The life of animals known to young children interests them, while stories of the life of exotic animals with which they are not familiar — with a few exceptions like the lion, elephant and dromedary — do not interest them. The tricks and jokes of Mickey Mouse are at once appreciated by their mentalities in all their vivacity of expression.

This depends on the fact that they have the necessary words for translating for themselves these mental pictures that is the correspondences for connecting these new impressions with already existing ones. This exercise of seeking for words for images becomes for them a kind of game.

JUDGMENT - REASONING. — All words which define judgment and reasoning are words which recall movement. Thus *abstraction* comes from *abstrahere* to separate by force, paragon comes from *comparare* to compare, demonstrate, construct.

If the motion picture had only to assist in the perception of objects and could not be used in more complex mental operations, it would not be worth much as an art to be applied to teaching.

Is it possible to transpose to the screen the phases of intellectual work? Can this transposition be useful and desirable? If we

answer in the affirmative, we ought to find in the activity of pedagogues and students traces of these necessities and proofs of the possibilities of reaching abstraction by means of the sensory life. Henri Poincaré, author of *Science et Méthode*, employed in his arithmetic lessons a system of lines and tables which moved about and were superimposed one over another, that turned and twisted about. He did this under the belief that the teacher's first duty, after having enunciated a definition, is to endeavour to demonstrate it in a coherent fashion to justify it and impose visually. This was all before we had the typical application of the cinema method.

It may well be that many children are slow in grasping facts owing to an inexact introduction to their study. The motion picture has the advantage of showing the genesis of images, since the lines are gradually traced and the component parts are put in position during the course of the demonstration. (PIERRE DUROSOY, *How to Teach Mathematics*, in *Etudes*, No. 18, Paris).

The normal way of bringing mathematical abstractions down to the level of the intelligence, the way which in its natural and necessary movement follows the human spirit starts from a sensory perception. For a child, understanding means seeing.

There is no machine which teaches us to see better than the cinematograph, on condition that its pictures have been well chosen and are projected in a clear and intelligible vision. In this department, the motion picture is the means which allows us to put forward real facts in such a way that they can readily be grasped, to present them with great precision and with a rhythm that harmonizes with the needs of the spirit.

THE CINEMA AND TEACHING.

For a Positive Pedagogy. «The spirit only understands fully when it is able to create».

The master's lesson has more value on

account of its method than its subject, that is on account of the totality of means capable of arriving at understanding and presenting it with some coordinated facts so that the intelligence may be able to schematize and to establish the relations which unite them. What are the best means for arriving at this state of things? Those which connect new notions to « schemes » or mental frames already existing in our spirit, those which feel the necessity of these nexus for illuminating the path of our intelligence.

Success depends then on the value of the means employed. The scholastic cinema, if it is not to be a failure, requires order, a hierarchy of facts, an analysis of mental operations and it will be entitled to be considered a lawful adjunct of pedagogy if it answers these demands.

The art of teaching must have its laws like all the other arts. Individualist theories have obscured this fact, but while some persons disapprove this theory, children are opposed to forms of teaching which are blindly based on personal research or on discoveries of science disconnected with any work of the teacher. The child capable of evolving his own system of cognitions, his own science, is a mythical being. Some one must help him. How is this to be done? By allowing him the illusion of discovery, while directing his spirit and preventing him from losing his path. In spite of this, perhaps even on account of it, there remains a wide field for the spirit's activity on condition that this activity is exercised within limits and that its aims are clearly defined.

The harmony between order and liberty, in the form if not in the substance, is possible and necessary. The student loves intellectual discipline, feels the need of it and is in no way oppressed by it. The pedagogic method which takes its origin from the motion picture leads to an orderly form of teaching, a need of liberty and a naturally disciplined activity.

The cinema's didactics are direct in the sense that they require order in the present-

ation of facts, an order which corresponds to that followed by the mind.

It has been held that the teaching curriculum was independent of the didactic system which put it into effect. This is clearly an error. Order requires that the various parts of the scholastic curriculum or programme be presented according to different plans and according to their importance, in which way an equilibrium is established. The curriculum contains the method since it defines the importance of the subject in relation to the whole, and indicates with what care and special forms it must be demonstrated. To define the relative importance of subjects for teaching might mean a form of anticipation that would be neither necessary nor useful. It behooves us then to consider the means best adapted for understanding; while we must cast aside dogmatic systems which create monotony, at the same time insisting on the necessity of research in an art which is all the stronger, the better it is ordered.

The preparation of scholastic curricula, the importance of which is obvious, forms the task of those who understand their extent and variety, that is specialists. Scientists recognize, — in whatever subject matter they may specialize — that the direct path towards knowledge has its beginning in the senses. They therefore admit the value of facts and observation of facts and, as a consequence, the uselessness of dogmatism. Without doubt, any scholastic programme outlined by them will show the importance of the method of observation, which is a prelude to the scientific method.

The faculty of observation varies in its means. The teacher cannot be acquainted with all the means. The curricula will suggest some to him thus intimating the diversity of the activities which lead to knowledge. It might be stated that in this way the teacher will no longer enjoy any liberty. Has the musician any greater liberty when he follows a score or plays an opera of his own choice?

Under the discipline imposed on him by the composer, a discipline he willingly accepts, his soul is exalted and he becomes capable of free expression. Without a discipline of this kind, the spirit is disordered and incapable of emotion. The pedagogue is like the musician. He tries out the motives composed by experts on the childish intelligence, and tries them according to the dictates of his temperament, without in the least belittling his own personality. He does not create, but he assimilates, and can therefore transmit. The pedagogue who is master of his material and means for developing it only fulfils one part of his duty. Each day he ought to « practise his scales » In order to understand these exercises of adaptation, and to execute them well, all improvisation must be given up. It is always an enemy of live pedagogy.

The humblest being is always worthy of the most attentive care. Beings of this type must be analysed and we must study how to handle them intelligently. There is no need to seek to make such intelligences shine.

This kind of study is difficult. If it induces your mind to represent the effect of vague and rudimentary statements, to guess at reaction and to differentiate your intelligence from that of your pupils who are listening to you and observing you, it will offer you so many new and various visions that you will be led to abandon at once this kind of inquiry, and in this case the effort will not seem superior to your strength.

The analytic study of subjects of teaching and their effect on children's minds leads to the study of teaching systems and to a comparison between them.

It has been stated that there are numerous systems of teaching, but this does not mean that they are all equally valuable. We must vary our methods in order to avoid monotony which is often caused by an excessive use of the same means.

The motion picture cannot anyhow be considered as a universal means of teaching. We must use it with discretion like anything else. Before tackling the question of

the scholastic cinema, let us consider three essential points.

(1) Is there a contradiction between the active method and the cinema?

(2) What are the categories of the scholastic film?

(3) What is the best form for the teaching film?

Active Method and Cinema. The three guiding principles of modern pedagogy are to be found in the immediate surroundings, in the principle of concentration and the plan of work.

Immediate Surroundings. - Surroundings: every day experience. Things and ideas from the daily circumambient life, perpetual coming and going of life, vegetable world, animal and human surroundings; scholastic work which is connected with the foregoing.

Concentration. - Suppression of arbitrary cuts which hamper the live trend of the interest; maintenance of the relations between the various subjects taught; cohesion between the student's actions.

Work. - The pupil acts, seeks and expresses himself. The teacher advises, stimulates, animates. Only personal activity counts. It is necessary to assist children to make their way along the path of independence and liberty which requires a continuous and spontaneous effort and also a submission to the rulings of order.

Whether we want it or not, the school is being transformed. It may be there is a certain amount of Utopian idealism in these principles, but they are necessary in order to give the school its characteristic physiognomy. The school of tomorrow will not be the same thing as the school of today. The relations between master and pupil will undergo modifications. The teacher will find himself obliged to take account of new methods and the work of inventors and critics (R. P. Chaillot in *La Nouvelle Revue des Jeunes*, Paris, No 7, 1932).

Is there a contradiction between the active method and the motion picture? We mean the active method or active school, the chief

characteristic of which we have already outlined.

If there were any contradiction, the cinema would have no longer any *raison d'être*, because the active method satisfies our requirements too well to allow of the possibility of our turning back to outworn and superseded methods out of touch with modern ideas.

Up to now the cinema has deserved the reproach that it encourages mental laziness and serves up an intellectual meal for the pupils, for which they ought to have prepared themselves to appreciate it properly. Can the motion picture, apart from tricks and artifice, excite the child's mental activity? Can it make children participate directly in the acquisition of knowledge, invite them to gather it, catalogue it, observe their material and draw the necessary observations and conclusions?

The present rules governing the scholastic cinema seem to be at the opposite poles of those of the active teaching method. Documentary pictures, difficult to grasp and understand, and having little connection with routine class work cannot furnish opportunities for interpretations or researches.

The active method has invented nothing in teaching, it may be urged, but has limited itself to allowing a knowledge of what it is necessary to know to be gained with all and every means. The Socratic system of questioning is the one that ought to prevail.

The cinema seems, on the contrary, to be essentially anti-Socratic, since the children are expected to learn merely by looking. This ingenuous conception of things, this remaining in the master's shadow, this movement towards a mechanical pedagogy have gravely damaged the teaching film. They have arrested its development and created the opinion that it can only have a secondary function in scholastic life.

The teaching film, in its elementary forms, which are badly suited to the school can have no future because it has no demonstratable utility, or because the mediocre utility which can be discerned in it does not justify its

exorbitant cost. At the same time for making good scholastic pictures, it is patience and intelligence rather than money which are required. It ought not then to be difficult to create a new form of cinema which would put in their proper places *teacher* and *student*. The former, consulting motion picture programmes will find there subjects suited to his screen. He will analyse them in order to give the students a ready and proper understanding of them. He will recreate them as it were, giving them a new life, and presenting them in such a way as to be readily accessible to our mentality and the mentality of children.

The *cinema expert*, in the limits prescribed by pedagogy, will seek for the best solutions of technical difficulties.

The teacher and the film expert ought to collaborate in cutting and mounting, cooperating in the best and closest way possible.

The essential function of the motion picture does not only consist in the best presentation of subjects, but also in the direction and policy which it can give to a still incomplete pedagogy. Its efforts should be directed towards the child who, in the opinion of Rousseau, we do not know at all. It (the motion picture) has forgotten the study of methods and has not sought to facilitate the teacher's labour which should tend to bring within the reach of all his scholars the things it is his duty to teach.

Neither scholastic manuals, nor oral lessons nor ordinary teaching material force us to such a close and diligent effort of research and study as does the film lesson. The analysis of the subject and its complete understanding are necessary for the choice and success of the lesson. A comparison of the facts seen and the description which follows oblige the student to a precise form of expression and a logical perception not found in lessons that are prepared in substance, but are often enough improvised in the form. The film gives pupils a means of judging the value of the teaching received. It obliges the master to be exact in what he teaches,

both as regards methodology and the analysis which his pupils will make.

Images and Cinema. In order clearly to define the nature and functions of the scholastic film, we must not isolate it from all the other forms of illustration in the didactic field such as text-books, mural pictures, slides, etc.

The image, according to Comenius's *Orbis Sensualium pictus*, shows children the things of which their teacher is speaking when such things are not actually present. In this way they learn their names bit by bit.

This is also the essential function of the illustrations in text-books. Pinloche states that his *Vocabulaire per l'image de la langue française* is a dictionary in which « the image or picture being prior to the word, and the evoking sign for the idea common to all peoples and understood by all has really the function of a universal language ».

The image must take the place of real, first hand knowledge in a typical form of language. It offers to methodical observation fields hitherto unknown. It creates requirements that can be satisfied without effort provided that the image or series of images are in accord with the laws of psychology.

There is no determined absolute technique in the matter of scholastic images or pictures.

Even caricature can be used which hits off a story without words in a few lines with a natural liveliness of its own and makes its point by accentuating an essential so that the interest is directed by one sign that has immediate reflections on the mind. The caricaturist can be a pedagogue without knowing it.

The scholastic text-book is getting less and less adequate for modern requirements. The wealth of subjects to be taught leads us towards the creation of newer kinds of text-books which should be more like guides than summaries. The illustration in

the text-book is made to fit the text, while it should really be the other way about.

The image is an object for observation and implies the drawing of the attention to it and a description of facts. Illustrations are no use unless they give some substance to the mind.

It is impossible to give too much thought to scholastic pictures. We shall have come within appreciable distance of perfection when scholastic projections are made with the same care that is taken in the production and projection of an ordinary film. There must be identity of method for the fixed projection and the moving picture.

To take an example: the illustration of arithmetic text-books is very poor because insufficient attention is given to gradual approach to the subject and to detail. Everything is presented *en masse* without the secret of the construction being shown.

Pupils who are weak in mathematics are not less intelligent than their fellows. What they lack is the sense of cutting. A little light will often give them this faculty, and reveal the mystery to their intelligences.

The scholastic cinematographist is a creator and imager of pictures. When he shows a picture he superimposes images. When he teaches, he uses the cinema method which is an analytic method, and can therefore give life to an admirable form of art.

The Scientific Film. It is useless to distinguish between the scientific research film and the scientific demonstration film because they deal with two subjects which merge into each other.

It would certainly not be desirable to class the scientific film with a teaching film, because there is nothing in common between a didactic film prepared for elementary or secondary classes and that destined for use at a University. There is a difference in the spirit with which they are imbued. The first is concerned principally with the didactic problem which seeks to render com-

prehensive to young pupils the subjects with which it deals, while the scientific film concerns itself only with its subject and causes it to develop in accordance with logical rules, without any regard to its pedagogic use. A scientific film deals uncompromisingly with its subject, whereas a teaching film compromises in order to bring its subject to the level of the understanding of the spectators and will even betray science itself in the good cause which it seeks to serve.

The scientific film may be defined thus. A film that represents the life of nature, produced by technical means, rendering visible to normal observation phenomena which it would otherwise be impossible to study.

The scientific value of this kind of film does not necessarily exist in the interpretation, but depends, for its value, on the persons who have studied the subject and offered the representation of the phenomenon.

The teaching films are those whose objective contents are clearly outlined and have a definite instructive value. The subject of a film has nothing in common with its instructive value since anything may be included that is instructive. That which gives character and value to a didactic film is the spirit in which it is conceived, the importance given to the facts and the way in which they are accentuated to allow of their assimilation and retention by the memory. The method which inspires the plot, the sole object of which is to achieve lucidity, taking into account the psychological element of the future spectators. The instructive value of the didactic film is a subjective idea, and therefore is variable and cannot be classified in a catalogue of films. Thus the true character of the teaching film is the method of the representation of the facts, their balance, order and quantity, which must not exceed the capacity of assimilation of the future spectators, taking into account their age and intelligence.

The exact definition of a teaching film, in our opinion, is as follows: a film created and realized in order that the facts or phen-

omena presented may be easy of assimilation and retention by the memory.

The Documentary Scholastic Film. The documentary scholastic film is intended to illustrate teaching. To awaken the mind to a procession of images which would otherwise fade and pass from the memory. Its more direct purpose, however, is to create an atmosphere which would lend reality to mental visions which would not otherwise be impressed on the mind.

Documentary films destined for schools have so far been very few in number, but their trial some years ago, attained results which showed how useful this form of film could be and how desirable it is that its production should not be left in commercial hands. The development of the documentary scholastic film has been endangered by the advent of the sound film.

The sound apparatus is impossible for schools on account of the high cost of the projectors and the prohibitive price of their hire. It has been sought to solve this difficulty by the construction of sound projectors for 16 mm. films. This solution has not been found very satisfactory, since the cost still remains high, and the productions are not of the best quality. The actual conditions under which the scholastic cinema is produced are very little understood and may have to be entirely revised.

There is the necessity of convincing the scholastic world of the great value of the documentary motion pictures and the problem of the organization of the production, and distribution of the material in such a way that it may become a commercial proposition.

In the following pages we will show the resources of the cinema under this reorganization and its great teaching.

The Recreative Scholastic Film. There is always a place in schools for the recreational film, and we may predict that there will always be recreational motion pictures for schools.

In animated drawings there is an infinity of delicious nonsense which may be condoned and which is capable of giving intense pleasure to children. Adults also can appreciate the jokes of Mickey Mouse and Felix the Cat, nor are they repelled by the necessary moral lesson of the drawings which their artistic creators have introduced into the cartoons.

These three categories of films are sufficient for all pedagogic needs, and there is no necessity to add to them. In any case it would be a fundamental mistake to assert that the scholastic film can always be, at one and the same time, instructive and recreational. The expression *recreative* is not always clear; in fact it is not certain that a film which amuses, will impress itself on the mind as well as one of a more serious nature. In the recreative film there may be a too great facility, and it would be dangerous for the educational cinema to fall into this error.

A lesson on the film is just an easier lesson and, if well presented, will be more profitable than other modes of learning; (1) because a lesson given by means of the film diminishes the possibility of misunderstanding the subject and the details to be studied; (2) because a film presented with care, and the necessary lucidity and simplicity, offers better material for retention by the memory and is more easily recollected.

Those who have the making of the teaching film, should seek to attain lighter and not heavier programmes. In the words of Montaigne, they should render *mieux avant* rather *plus avant*.

Scholastic Cinematographic Editions.

The greatest reproach that can be made against the cinema is the difficulty of teaching with it, and impressing the subject of the film on the memory. In reality, no film can, with only one projection and without comment or repetition, impress itself on the memory, and cause the incidents to stand out in relief.

If this were not the case, it would be necessary to admit the complete inadequacy of ordinary didactic methods, if, in one stroke, by means of a mechanical process, the laws of teaching could be entirely altered.

This is an unreasonable proposition, and it would be still more unreasonable to seek to justify it. We do not, however, on that account intend to set ourselves against cinematographic teaching, but to give it its proper place, without taking into consideration the ultimate possibilities of its intelligent use.

There is a resemblance between the lesson given by a master and the film lesson. Neither the one nor the other will firmly imprint itself on the mind unless some other means are used to attain this object. The master's words can be re-read in the text books, and the pupils can recollect the lesson and their memories can be refreshed. This exercise has no other object than insensibly and by experience to imprint on the mind the rules which have already been set forth by the master.

There is no difference in the aim of this process, whether illustrated by the text book, still life, a drawing, a lantern slide or the projection of a film. The recent evolution of school books show that they have been entirely transformed. They perhaps contain less matter, but are illustrated and are much easier of comprehension. The illustrations help to eliminate any misunderstandings that may arise from the use of language. The more recent illustrations are inspired by modern pedagogic ideas, and combine with the text to make a clear representation of the facts to be learned by the pupil. This idea is not so entirely modern as it may appear « In this year (1574) Millanges began to print scholastic books for the College of Guiana. The somewhat dark shop smelt of thick ink and fresh paper. Four young men were singing and working the printing press.

« Here is a guide book », said Millanges to Montaigne, showing him the proofs of a book, « and here is a Virgil », « They are

printed in such a way, that the students can easily make notes ». Montaigne turned over the specimen offered to him. « Why » he asked, do you leave these blank pages?

« So that the students may write the remarks and explanations of the teacher at the side of the printed page ».

Montaigne was very struck with the originality and wisdom of this idea and was moved to felicitate Millanges upon it.

(André Lamandé, « La vie de Montaigne », ed. Paul Plon, Paris).

The teaching film as we have defined it, should be capable of being projected in a single lesson. The meterage must be limited and the projection must not last more than 10 minutes. The images presented should not exceed twenty or twenty-five to the second, so that the length of the film may be restricted to 200 metres. Since it is necessary to be able to repeat the projection without loss of time, the projector should be furnished with a device for continuous reeling and un-reeling which would allow of interruptions and repetitions of the film.

Even when thus regulated, the moving picture cannot give the greatest, and most to be desired benefit of all, namely the possibility of moments of repose, so that the spectators may reconstruct the principal points of the lesson in which they have taken part, with time to explain clearly and precisely their own ideas on the subject. The solution of this problem has been found by the makers of films who extract from the film the most attractive pictures. If the essential pictures could be drawn from the film, edited and reduced to a size suitable for reproduction in a copybook, the reconstructive material of the lesson would be at hand, and its course with any comments would be there for reference. Thus the individual work of the teacher, the only work that counts, would be adapted to the lesson of the film in a way that at first seemed impossible. This method would be complete in every branch, and, thus organized, would permit of the assistance of the film in every possible subject. It would not be out of

place to imagine a book resembling that presented to Montaigne by Millanges, with blank pages for drawings and photographs and others for notes and individual work.

This lesson book might well be used in the schools of many countries and would be of the greatest service, giving an efficiency to teaching that could not be achieved with the ordinary printed text-book. In addition it would also contain a certain element of the individuality of the pupil and of his abilities and would besides bear witness to the pleasure given him by his studies. Objection might be made to the price of such a book, but we believe that this would not be an obstacle. The photographic reproductions, with the new mechanical process, would cost for an entire edition, plus a special specimen edition, less than a farthing per copy. A lesson could well be summed up by six to ten photographs at most. In the course of a year the films could be limited to half a dozen subjects, as the remainder could be drawn from those already existing.

If, however, it is thought necessary to have a cinema for every school and an individual film for every subject, it must be remembered that it is exactly this demand that would cause a diminution of prices.

The scholastic film is costly because it is not produced in sufficient quantities. If films were manufactured in the usual mode adapted for other auxiliaries for teaching, their production could be taken seriously and a collection could be made which would stand much more chance of being sold, and of being a source of profit. This profit would increase as the film became more and more adapted to the purpose for which it was intended.

The Length of the Film. - The teaching and documentary scholastic films are simple and must deal with one subject only, with no unnecessary deviations.

The scenario must not be subjected to a strain which would be legitimate in evolving the phrases of the phenomena and the

marshalling of the facts but that would be harmful to the perception.

In the scholastic film there is no place for any superfluous matter, and if it should seem rough and unfinished, it must be considered as a necessary evil, since the scholastic cinema has nothing in common with the ordinary film, and must interest without distracting the attention from the subject.

We have sought to establish the length of the film, but it is a question of slight importance and one that depends on the subject and the quantity of matter which the pupils are capable of assimilating.

The length of a film is therefore a problem of a technical description which will be resolved after precise and methodical examination. In addition, the teaching film for many reasons which would come to light on technical examination, must, by its nature, be of short meterage.

Taking the film. - Teachers too often declare that; « Yes it is good, but it goes too fast ».

This complaint is justified. The taking of the scholastic film cannot be at the rate of 16 photographs per second, and as regards its normal velocity that would be decided by technical necessities. Experimental methods are necessary for the development of the cinema, and without them nothing of importance or exactitude can be achieved. Certainly the pace of the scholastic film is too rapid, and this rapidity causes a difficulty in a proper understanding of the pictures.

The work of reducing the velocity of the film in cases where the movement of the pictures is too fast for proper perception has been considered, but for normal phenomena it would obviously be unnecessary.

Teaching films which seek to demonstrate minute details must necessarily be slower than those showing complete pictures. The sixteen photographs per second can only be animated by a uniform velocity; the rapidity of the unreeling of the photos is relative, and depends on the various phases of the subject.

There is a rhythm for shooting the picture just as there is one deriving from the nature of the images and the mounting. It shows itself when the projected scenes pass again in the memory.

Children are no more insensible to the rhythm of the film than to that given to the lesson by the master. The problem of the number of images per second for the reeling off of the film is essential, but can only be solved by experiment.

Titles and Substitutes. - Certain pedagogues are for suppressing these as serving no purpose, but if they are well chosen, and the film is shown at a pace which allows of their comprehension, they may be very useful.

It is, however, necessary today to avoid long titles which interrupt the development of the pictures. Each part of the film, suitably divided up, and headed by two or three words, and no profuse explanations, should be sufficient. A film that has lengthy and complicated comments is generally a bad film. Sub-titles are dangerous because the attention is drawn away from the picture. They must therefore be limited, and a rigorous analysis imposed and a careful selection made of the essential pictures.

The titles and sub-titles of a well-made film must read like well written headings, without useless phrases.

It has been sought to substitute sub-titles with numbers corresponding to headings in the text books but this is a useless complication and an unintelligent solution. The heading breaks the normal development or rhythm of pictures. If the sub-title is unnecessary to the picture it can be suppressed.

Reduced Size Films. - All that we have said of the elaboration and production of the scholastic film demonstrates that the problem of the reduced size film is closely connected with the future of the scholastic cinema, which must not be considered as the poor relatives, but needs independent treatment and a special technique of its own.

There are three reduced sizes; 9.5 mm.,

16 mm., and 17.5 mm. The reduced size, for practical and economic reasons, is indispensable for teaching. The scholastic film must, in other words, be within the reach of everyone's purse and, since it is necessarily for use in schools, it should be easy to transport and to manipulate and must be free of danger.

The type of the machine and of the film is the reduced size. The third International Conference on the Scholastic film held at Vienna in 1931, adopted certain resolutions on the reduced form, but gave no indications of a special preference for one or other of the reduced size.

It seems, however, that the consensus of the majority was for the 16 mm. For that matter, in the present state of the technique of the apparatus, it would be impossible to hold any other opinion. Doubtless the smallest of the reduced sizes would be the most interesting, providing that its qualities of cheapness, durability and strength of light were equal to those of the standard size. The uncertainty of all matters connected with the scholastic cinema is the principal cause of the slow progress of the reduced size. It is not known which films would be useful for schools, nor the rules to be observed in their creation, nor what it is necessary to know in order to make a practical system of teaching with the cinema.

It is therefore not surprising that the matter remains stationary, and that no perceptible progress has been made.

The Congress at Vienna arrived at the following conclusions: that every part of the film must be divided and headed by two or three words, at most, which must suffice without additional explanations. As we said before, a film that has too many sub-titles cannot be a good film.

It would be a delusion to believe that the sound film is destined to be in the future an instrument for teaching. We do not allow ourselves even to consider a form of teaching which makes of the teacher a recording disc, and a virgin disc of the pupil.

The pursuit of knowledge consists of an

exchange between the pupil and the teacher, during which the teacher stimulates, directs and controls the activities of the pupil. The cinema cannot be a substitute for the teacher even though it may have a special value of its own in the moving pictures it presents.

Fixed Pictures and Moving Pictures. — There is no substantial difference in these two forms of projection. The same mobility is the distinctive quality of both. If the value of a collection of pictures lies in the choice and the order in which they are classified in sections, there would be almost as much mobility in a group of fixed projections as in a film. Especially when it offers food for thought and reflection.

The method of instruction is precisely the same, whether for fixed or animated projection.

The Silent Film and the Sound Film. — Does the coming of sound film alter the conditions of the scholastic cinema?

Whatever the value of sound pictures may be, it cannot be compared with that of visual pictures. This is pointed out by J. Bousinesq in the following quotation: « Under certain conditions, other portions of the brain such as the auditive system can form part of the visual system. The value of teaching depends on the clearness of the visual and the corresponding subsequent mental images ».

The value of the teaching unites with the clarity of the visual and mental pictures, and is again renewed in the recollection of the words of the master.

The addition of sound and of words apparently does not increase, and may even diminish, the intensity of the impression left by the pictures.

Animated Drawings. These have from the beginning, won the approval of those judging them from the recreational point of view, and even of those who have analysed their real value. Animated drawings have given an especial art of their own to the screen, apart from any ser-

ious purpose that the cinema may serve. This has come about because, instinctively, all means have been adopted that might divert or instruct.

The animated drawing throws into relief the principal idea, reducing the fatiguing necessity of discrimination and creates favorable conditions for the clear demonstration of the subject in an intelligent way. Applied to the scholastic film, it gives a precision of detail, and simplicity of representation, which these films so often lack. It provides the means for a theoretical disposition of facts and phenomena, which when made plain and clear to all minds has an attraction. This is especially apparent when it is considered that the triumph of the scholastic cinema does not consist in the faithful reflection of the visible world, but in the objective translation of thought.

An English author who writes of pedagogic matters with much spirit, is the author of a short volume called «The Differential or Integral Calculus within the Reach of All». Here are some truths it is pleasant to recall in spite of their apparent impertinence ».

«Seeing that a fool might do it, shows that anyone might.

«We have noticed that many so called professors of mathematics, who boast of being masters of such an abstruse subject as the differential or integral calculus, have no reason to be so pretentious. To satisfy their vanity, they desire the calculus to be considered a terribly hard thing, and it would deeply pain them if this legend were destroyed.

«The professional mathematician will perceive that some of the methods that we have simplified, and that we have had the hardihood to apply to the solution of several problems, do not present the same difficulty in their solution, as with the ordinary system.

«Who in the world would deny a watch to one who was not a watchmaker?

«Who rebukes a violinist for his inability

to make the instrument on which he plays, and who would seek to teach grammar to a child who had not yet learned to speak?

«Mathematicians would declare that this book is simple to excess because it eliminates from calculations everything that is difficult. This is only too true, but is, at the same time, the only reason we have written this book. In it we address ourselves to the infinite legion of unfortunates who fly from the idea of studying the calculus because of the absurd way in which such forms of science are presented to them.

«Every subject even the simplest, can be made repellant, if from its beginning it is stuffed up with motiveless difficulties ».

(Silvanus P. Thomson. «The Differential and Integral Calculus within the Reach of All». Dunot and Pinat, Paris).

These irreverent sentiments will please the numberless students who have suffered from the so-called rational systems of teaching. It is not only in medicine that there are *a priori* conceptions, there are others and perhaps more of them in teaching. It is therefore always a useful work to unmask them.

The scholastic film can, by means of animated drawings, deal with any theoretical problem, free it from the verbosity, which makes it so heavy, and translate into pictures, mental visions, giving them life and making them easy of comprehension.

In the scholastic world there are numberless problems which would be infinitely simplified by being expressed clearly and in a concise manner. It is only necessary to mention geometry, arithmetic, algebra, physics, electricity, chemistry, zoology, botany, geology, economic and political psychology.

A multitude of problems exist in these subjects which would gain enormously by being treated in the above-mentioned manner.

A simple conclusion is arrived at. In the scholastic cinema there is a virgin soil, in which to work, sow and prepare, for the future instruction of young people, who up

to now, have never been able to completely understand that which it was desired to teach them.

Let us suppose that the subjects are treated in a competent and simple way, that the scenario is revised by those having experience and art in presenting and making them comprehensible. We would then have a methodology, which up till now has been sterile, but which under these circumstances would flourish and bear a rich harvest.

We should have a renewed interest in all those branches of science which until today, have been considered a heavy and useless burden.

Certain subjects treated by persons of imagination and illustrated by artists, could not fail to have the desired effect, attracting the teachers perhaps even more than the pupils and making visual demonstration more sought after than any description however complete and correct, to be found in books.

The Rationalization of Teaching Methods Rationalization is a method of organization which seeks to obtain the maximum result with the minimum of material and energy.

This definition would not seem to apply to teaching. It is, however, certain, that in speaking of the result of teaching, it is desirable to define it and to calculate the energy necessary to attain it.

As to the material for teaching, it exists alike both for pupil and teacher, and since in teaching results are desired, and energy is expended, it must be admitted that a rationalization of teaching methods is possible.

The best material and the utmost economy of energy are always desirable. For our purposes rationalization may be defined as the art of adapting scholastic material to the mentality of the various categories of pupils, an adaptation which must be arrived at by research, and the preparation of the simplest and most direct systems.

Of all the arts, teaching alone has no

raw material which may be studied, criticized and taken as a model. Further, its results cannot be tested, until the moment when it is presented to the public, a public which, by its nature, is unable to judge its value.

The theoretical exposition of the method is not a substitute for the master's lesson; the verbal explanation, the demonstration and means of demonstrating, the moral atmosphere, are all necessary elements. It is possible that the sound film may supply all these.

The principle of rationalization has always been followed with the best results. The bases of national wealth are wise and careful forms of rationalization, used by the woman in the home, the farmer on his land, the workman in his workshop. When the housewife puts stockfish and peas in the same dish so that the latter can absorb the salt which the whiting must lose in order to become edible, she is carrying out an example of domestic rationalization. When the dyer colours linen in the same vat in which later he proposes to colour silk, he knows that the linen will absorb the acidity that is dangerous for silk, and he is performing an act of industrial rationalization. When the farmer plants fruit trees near his chicken yard, he knows that the trees will derive advantage from the animals' manure, and the birds enjoy the shelter of the trees, and he is performing an act of agricultural rationalization.

Why then should we not attempt rationalization in teaching methods since rationalization itself only means an application of the intelligence to work?

The rationalization of methods of teaching cannot only come from a comparison of systems. The only way of arriving at rationalizing processes in this subject is to attend lessons and criticize them, to repeat and analyse them and the best means of doing this is the motion picture.

The masters of pedagogy amuse themselves by saying that we do not know

how to teach. They could show us how to teach with the use of the film, illustrating our defects and showing us examples to be studied and analysed in peace. In this way pedagogy could become a real art.

If we think of the very small expense which a cinema version of a lesson by a great teacher would require, as compared with the waste of money required for the production of a film on some more or less mediocre story or novel, we shall be surprised in noting that the motion picture

which ought to be an instrument of progress and culture is largely limited to a recreational function.

The most capable teachers, the most illustrious scientists hide from us examples and cases which could prove most useful. Owing to a lack of means, we are obliged to limit ourselves as teachers to the resources of our own minds, since no serious attempt has yet been made to utilize the rapidest and most organic means of communication which man has yet invented.

REPORT ON THE CONDITIONS PREVAILING IN GERMAN FILM PRODUCTION IN REGARD TO DIDACTIC AND EDUCATIONAL FILMS

APRIL 1, 1933 - APRIL 1, 1934.

IN new-born Germany there is but *one*, uniform cultural tendency in the whole of the film industry. The duty of cultural cooperation in the field of popular education is no longer incumbent upon one particular branch of the film industry. A strong feeling of responsibility, inevitably implied in this high mission, has sprung up everywhere. Now at last the indispensable interconnection between the strong cultural will of the nation and the institutions of the film industry which have to serve this new spirit, has become a real fact. It is a characteristic proof of the inborn spontaneousness of this movement that the reorganization of the already existing institutions of the *film industry* commencing in the spring of 1933, became the prototype of the professional constructive organization of the German cultural community. When the fundamental act establishing the Chamber of Culture came into force on September 22nd, 1933, a fully organized Preliminary Film Chamber was already existing, and by the said act could be made the first member of the Cultural Chamber of the Reich which was about to be formed.

The warm and active interest taken by Dr. Goebbels, Propaganda Minister of the Reich, in the German film industry was thus for the first time crowned by a most important success.

Moreover, he frequently advocated in personal addresses and lectures the cultural improvement of German films. All these

endeavours were finally crowned by the new Film Act dated February 16th, 1934.

The most important measure directly affecting didactic and educational film reels, but also exerting a decisive influence on the educational values of entertainment motion pictures, is the alteration in film censorship contained in the film act of February 16th, 1934, and in particular the introduction of the leadership principle when carrying through the censoring of films, in order to decide whether a film is to be licensed for public performances, and in order to decide whether an individual film is to be given the mark of

« being of general educational value »,

« being of artistic value »,

« being of cultural value »,

« being valuable under aspects of national policy »,

or « being of didactic value for educational purposes », and whether in addition it can be awarded the distinction of being « particularly valuable ».

Thereby the official Chairman of the Censorship Chamber has been newly entrusted with the decision whether any such mark is to be granted to an individual film and the old institution of the original « Professor Lampe Chambers » thus ceased to exist as on February 28th, 1933.

The result of all efforts towards achieving a qualitative improvement when coordinating the film industry with the national community, is reflected by the marks which

were given to dramatic films within the period from April 1st, 1933, till April 1st, 1934.

Out of a total of about 140 German dramatic films (« Spielfilme ») have been approved of as

« being of general educational value »	7
« being of artistic value »	20
« being of cultural value »	1
« being valuable under aspects of national policy »	3

Moreover, a total of 4 films out of these 140 films has been awarded the distinction mark of being « particularly valuable ».

From April 1st, 1933 till April 1st, 1934, a total of 250 films have been licensed as « *cultural films* » (didactic and educational films) by awarding them one of the aforementioned marks. As far as such films do not exceed a length of about 500 to 600 metres, their destination is, most probably without exception, to be used as so-called introductory films in cinemas. In case of such films being shown, the entertainment tax to be paid by a film theatre is reduced by a certain percentage.

This entire educational and didactic material is thus shown to the public at large. In the case of every individual film the visitors can be estimated at about 5 millions. This shows the enormous importance of the « introductory programme » (Beiprogramm) in German film industry, and also justifies the close attention given to this question in competent Governmental quarters.

To a great percentage the influence of the film theatre on popular education is exercised by way of the so-called morning performances (« *Matinée* ») which in no other country has come into fashion to such a degree as in Germany. A morning performance of this character is a performance in which a long educational film (« *Super Cultural Film* ») is shown by a cinema on Sunday mornings, usually from half past eleven

till one o'clock. During the winter months, in Berlin alone, up to 10 such performances take place in the most fashionable picture shows on a single Sunday. Such *matinées* are customary in most German cities.

The producers of such non-dramatic films — i. e. of films having no continuous dramatic story — are organized as Association of Producers of German cultural, didactic and propaganda films (« *Lehrfilmbund* ») having a *commercial* membership of about 150.

The extensive tasks in the field of diffusion of *cultural films* which formerly were mainly incumbent upon the « *Bildspielbund* », have now been transferred to the Provincial Picture Departments of the National Socialistic German Workers' Party. The organizations of the party have taken up the systematic and constructive handling of the non-commercial film matters inclusive of schools. All *non-commercial* parties showing films are organized as the Reich Association of German film performers, which was formed last Autumn. The membership of this associations totals about 3500 members.

In this manner the movement in the field of cultural and didactic films which hitherto was based on a voluntary cooperation and which was organized in the form of clubs, has been transformed into a rigid organization, as far as the *diffusion of films* is concerned. This system, when fully developed, will warrant that the entire didactic material of films is really and truly shown to the youngsters and juveniles. In this body all special fields are included.

This applies to the fields of hygienics and medicine, to vocational advice, agricultural industry, the prevention of accidents, etc. Also special tasks can be complied with as for instance the film propaganda for the winter relief work for the distressed, the protection of handicrafts, the care for mother

and child, small gardeners, attention to and care for animals etc., and also all interests which are of importance from the point of view of national policy.

The care for technical apparatus is closely connected and goes hand in hand with all this constructive work. The 16 mm. sub-normal film has been a full success. As an estimate about 16,000 sub-normal film apparatuses are being used already at present. This cannot but have a reciprocal influence on the purchase of apparatuses and the demand for film material, and vice versa. It must also be mentioned in this respect that the sub-normal-sound-film apparatus also commences to exercise a stimulating effect.

Competent official quarters are eagerly at work to draw up schedules of require-

ments in this respect, in order to organize a systematic scheme for the production of short films *exclusively meant for didactic purposes*. In this manner a sound basis is being created which is a prerequisite for instructional work on a large scale by means of school films.

In view of all this, the tasks aimed at and the duties to be fulfilled by the German film industry, especially the producers of cultural films and their customers, in the course of the forthcoming year and the years to come are such as can only be realized by a close and conscientious cooperation of men who are resolved to do their utmost in serving the national community and in accomplishing cultural achievements of value for the whole nation.

THE USE OF THE CINEMA FOR TEACHING IN SECONDARY SCHOOLS

BY

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FOR twenty-three years the Cinema has had a place in teaching. During these years the numbers of apparatus have multiplied rapidly, many attempts have been made and Commissions have been united, but the results still are not what they should be.

The first experiments in 1911, were carried out, as was inevitable, in agreement between the creator and the teacher. The results were not all successful. When, however, it was necessary to generalize, the producer, wishing to direct the work himself, often changed the basis of agreement. Whilst the teachers intended to introduce the cinema into the school, the producers sought to teach with the cinema. It was from the beginning certain that this misunderstanding between profit-seekers and teachers would sterilize all efforts.

The opposition of the two concepts lent itself neither to a compromise, nor to any third solution.

The problem of teaching by the cinema presents itself to teachers in the following manner: until today, it has been forgotten that the cinema exists, and many excellent teachers, dispensing with its aid, have obtained magnificent results. There are those who, on the contrary, are convinced of the great possibilities of the screen, and believe that the cinema is capable of becoming a useful visual aid to other modes of teaching and especially in fixed and microscopic projections. Apart from the use of slow and rapid motion projections, the film like all other indirect systems is inferior to the direct perception of the real object, which is the base of teaching.

The solution of the problem consists in a judicious use of the film according to the nature of the objects to be shown and the time at disposal. Thus the cinema has its uses even if they are only humble ones.

The problem of cinematographic teaching as seen by some producers, is a very different one.

According to some, it constitutes the essential part of teaching, and the cinema should cause a pedagogic revolution. They consider that a film lesson should suffice in itself; that the teacher should prepare the projection and the titles, which together with the pictures, would leave nothing to desire. In the future, using the sound film this would not offer any difficulty. Even in advanced stages teaching ends by being only a series of official lessons. The same thing obtains in public conferences.

In secondary teaching the lesson often assumes this form especially in the higher classes and in certain definite subjects. It is credible that many teachers would be attracted by this form of lesson because it is easier to follow their own thoughts than those of others.

An orator, imagining himself comprehensible, ends by believing that he is understood by his audience. This kind of lesson furnishes in the same way as a romance material for a scenario, and the film thus obtained may be of value, because it presents, so to speak, a lecture without the lecturer.

Moreover, the spectators, whatever their object in going to the film, may during the

hour of two of its projection obtain both amusement and instruction.

Teaching, however, is quite another matter. It is a case of dealing with the mentality of children and with material not necessarily recreational. Also the lessons must continue for a certain number of hours in the day. The aim of a lesson therefore, is not only to resolve a problem, but to exercise the functions and intuition of the brain.

All modern teaching follows this course by which the master expounds the lesson and the pupils acquire knowledge in a passive fashion.

The students, moreover, are infinitely dissimilar: amongst them are those who have keen sight while others have quick hearing. Some again are myopic, or are weak and tired. Others have no application and again some do not understand the necessity for study and work. In consequence, the master must carefully watch the effects of his teaching; he must question in order to know if the lesson has been understood, and to repeat it over again if necessary. His principal concern is to adapt the lesson to the understanding of his pupils, to watch their reactions and thus to judge of the best means with which to bring forward those who are backward.

He must make use of his personal magnetism. It is not a machine that is needed but an individual to direct and superintend.

Whenever a new mechanical means is invented, foolish and incongruous statements are always made. Not only the cinema but the radio and gramophone also were supposed to bring about a pedagogic revolution; the gramophone having an advantage over the cinema in its power of repeating the lessons as often as desired. In the didactic world, however, there does not yet exist a better means of teaching than the book or better still, the book with illustrations. The illustrated book has been used for all subjects and has not so far been replaced by a better system.

Methodology of Film Teaching.

It is necessary therefore to put aside the possibility of the cinema as the sole means for teaching and only consider the use of the film for didactic effects. Treated in this way the solution of the problem should not be difficult.

Where should the film-projecting apparatus be installed? A special place is needed for all the material of the course to be studied and obviously the apparatus should be installed there.

For projections a hall for the common use of all could be used.

How and when should the projections be made?

As in all other systems of observation and experiment, the explanation and the projection of the picture must go together. We will not discuss here oral comments apart from projections, as it is not opportune at the moment to deal with mechanical experiments. Any exception to the above rule can only be justified by unusual circumstances and special needs.

Must the projection of the film be continuous or interrupted? Although interruptions may be necessary for the lesson, it is desirable that the oral lesson should coincide with the pictures as far as possible so as to avoid breaking the continuity of the film. For example, in a film on zoology it would be sufficient to depict the life and habits of the animals to be dealt with, and the greater part if not the whole film could be projected without interruption.

It is obvious that the film, although it cannot revolutionize or supersede teaching, can be advantageously used in the programme of the schools. Thus the master's comments can be made either during or after the projection, as may seem most suitable. The comment should be brief and synthetic, so that the pupil would not have the double fatigue of watching the screen and following the teacher's words. In most cases, the film should not need explanations. When it is desirable to reproduce sounds, such as the characteristic sounds of wind and waves, the

song of birds and the cries of animals, the sound film is of great practical use. In all other cases the sound film may be eliminated since the master's lesson must always be superior to that of the lecturer, however excellent.

The Comparative Value of Fixed and Animated Projections.

Is the fixed projection rendered superfluous by the moving picture?

Since the initial use of the film in certain branches of teaching, it has always been desired by teachers that there should be some mechanical means of stopping the film. This shows that although the cinematograph has its advantages, the fixed projection holds its own in teaching by keeping the attention of the pupil fixed on the particular subject to be studied and rendering it easier to understand.

What then, is the cinema's strong point? Without doubt it is the power of registering and representing movement. From this point of view, the cinema is indispensable and its importance in supplementary work is such that there should be no hesitation in using it, in spite of the difficulty of regulating and managing the apparatus or on account of the expense. It is, however, useless to lose time or money by using the moving picture when it can be satisfactorily substituted by the fixed projection. If it is not necessary to study any particular movements or special details, the moving picture only serves to distract the student from the subject.

The rotation of a vase of flowers or minerals before the lens with the object of changing the point of view, or the movement of any species which is by nature a fixed object and therefore more interesting when seen as such, makes the use of the moving picture apparatus an entirely superfluous complication. One photograph or if desired several well chosen aspects of the object are of as much value as any film.

It must therefore be left to the judgment of the teacher as to whether fixed or animated projections shall be used.

Effects of Use of Cinema in Teaching.

The cinema must only be considered as an additional aid to the master in teaching and shall therefore be placed at his disposal and not vice versa.

Programmes, time-tables, school books and mechanical means must all be used with a view to the capacities of the children and to didactic ends and not to display the functions of a machine.

If, however, the cinema cannot rule pedagogy, pedagogy can control the cinema. In fact, the preparations of a film on a given subject oblige the master to establish the order and characteristics of the various scenes, and as a film cannot be created for the use of one teacher only, it is necessary that the educationists should be in perfect agreement amongst themselves.

Doubtless all of them could make the necessary corrections. The work would, however, be extremely difficult for those who were not professionals, and could not be expected in an ordinary rented film. For example, in natural science the analytic method and anticipated study were not adapted until 1923, after twenty years of discussion. Up to that time many educationists still used the synthetic method. In dealing with *carnivora*, only the general character of the teeth and paws and habits of one special kind was first given and was afterwards followed by descriptions of other various forms of animal life. Today we are faced with the question of showing a type of a species, a cat for instance. We have to demonstrate its system of life, its constitution and special characteristics and qualities, and then proceed in a similar way with other species and finally make comparisons and the necessary deductions and comment. It is clear that these two types of film answer different methods which are quite distinct from each other. The cinema requires the adoption of a general uniform pedagogy. Since teachers, especially teachers in secondary schools, are not unreasonably jealous of the liberty which they have always enjoyed, the cinema must allow them to pool their efforts in order to

formulate a concrete plan of lessons while permitting freedom of action in everything else.

What Subjects Are Suitable for Film Teaching?

The introduction of the motion picture is still too recent for us to decide definitely what subjects lend themselves to treatment by it. It is, however, possible to classify the subjects in a decreasing scale of utility as far as cinema treatment of them goes.

The cinema may be considered as an improvement of the lantern slide or still. The latter is only used with regularity today in teaching natural science, geography and art. It is in these subjects that the film is likeliest to prove useful. Teaching of these subjects generally goes with special projection halls, and the staff who use the projectors are more or less familiar with the handling of optical and electrical instruments, while as regards other subjects everything has still to be essayed. We can therefore examine the extent of the use of the film in the three before mentioned subjects of education.

In natural science, the motion picture may be considered so important as to be practically essential. Since it is desirable to teach these sciences analytically, care must be taken that, to begin with, the concrete facts are illustrated and the relations between them established later. Direct perception of the thing taught cannot be bettered and nothing can really take its place. It is educative, inasmuch as it excites the student's activity and is at the same infinitely fuller. It carries, moreover, a visual impression of forms, colours and tactile sensations which assist in the identifications of the object, as do too the sensations of smell, hearing and taste. For minerals, the sample which one shows the pupils is as often as not an indifferent one while, as a matter of fact, colour and hardness are points of considerable importance in assisting realization and identification. The odour and colour of plants and flowers, their feel,

whether it be soft or rough are all points of prime importance.

As for sounds, the gramophone can be used, but the sound film can reproduce sounds equally well along with the pictures.

If it is a question of merely utilizing the forms of things, photographs or stills are as good as motion pictures. They concentrate rather than disperse the attention of the pupil.

Thus while a study of the morphology of an animal should be made with examples or stills; the animal's movements and habits can only be properly shown to the student through animated pictures.

Even in the case of a common animal, sufficiently small to be brought into the class-room and large enough to be easily seen, it is not likely to be very manageable, and can really only be properly studied outside the class-room.

Since ethnology is a very important subject in elementary teaching, there is a wide field of action here for the motion picture. If we also take into consideration certain plant movements, the projection of movements that are revealed in geographical studies, land-slides, avalanches, waves, rapids, cascades, lava flow and, when necessary, the life and work of men in nature settings (climbing, exploring, working of quarries and mines) it is easy to see how vast and various are the services which the motion picture can render us.

In any case, the cinema puts before us photographic documents which it is the teacher's task to analyse and use. This means oral teaching, and in that case, anything we ask of the cinema can only create useless fantasies for the spectator. Often, as a conclusion of this analysis, the educationist is constrained to prepare a scheme synthesizing the results. For instance, we have illustrations of the circulation of water in nature, from the sea to the clouds, to the various continents and its return to the sea through water-courses or the progressive leveling of the mountains through the operation of atmospheric agents. In some cases

we can imagine an animated scheme capable of visual and of facilitating at the same time, for certain students, the mental representation of the teacher's remarks. This on condition, however, that the pupil takes into account that the pictures are fictitious ones and not of real objects.

Care should be taken to avoid an animated scheme which the child may consider a documentary while he is merely seeing fantasies, for this is the way to falsify his ideas and conceptions instead of forming and guiding them. We may reconstruct in animated drawings the supposed movements of a fossil animal, but reconstructions of this kind are too often hypothetical and not without danger for the pupil.

In fact, the one undisputed function of the cinema, the reproduction of actual movements is sufficiently wide in its scope to induce us to direct our efforts towards the creation of documentary films suitable for teaching without concerning ourselves unduly over other fields of development. The best and simplest of schemes is that which the teacher draws on the blackboard, following the ideas set forth in his lesson.

Sometimes the film lends itself in an insuperable fashion to the perception of concrete facts. Certain physiological experiments require vivisection which is rendered permissible by the requirements of research, but not of teaching. Such actual experiments require in any case, a minute and delicate work of preparation so that film experiments become preferable.

To sum up, the cinema is indispensable to the teaching of natural sciences in order to reproduce before the pupil's eyes movements of living beings or even inanimate bodies which, for one reason or another, it is impossible or difficult to observe directly from nature.

In the teaching of geology, the cinema's place is similar. Some geology films are useful for the study of physical geography and human geography is, in any case, the systematic study of the way of acting of man, who in the study of natural science, can be

considered as an accessory. The film can therefore render useful though brief service owing to the limited time which can be given it in the programme of study.

Since history is generally taught by the same masters who teach geography, it would be possible to use the motion picture here if the teachers themselves were in a position to derive any advantage from it. Historical facts, are, however, as a rule, far off events, too far off for their photographic representation to be anything but an undesirable anachronism. The errors that creep into hypothetical reconstructions of a fact that is a scientific truth, when motion picture work is used, are of a nature to delude the students with tricks and fakes, falsifying their judgment. There is certainly no law forbidding anyone to find distraction in fantasies woven around historical facts or around invented facts such as novels, romances, plays, pictures and pieces of sculpture, the literary and artistic value of which we can always appreciate. The teacher, in alluding to films, novels, stories, etc. of this kind, should take care to point out to the pupils the points in which they stray from historical truth.

The teaching of the history of art is often also entrusted to the masters who teach history, but any reproduction of monuments, statues or paintings should be left to still projections.

The subjects best treated by the motion picture are those which have to deal with actual facts which can be observed directly. The function of the motion picture in these cases is to offer the students the facts or movements connected with persons or things which are worth studying and observing. This seems, but is far from being a limited function.

The teaching of specifically experimental sciences, that is physics and chemistry, ought to introduce the pupils to the experimental method. The essential facts become experiments that have been performed by the teacher or the pupil. The projection of these experiments or facts is not, of course, the

same thing as seeing the actual experiment itself, but there are cases in which the actual repetition of the experiment becomes a physical impossibility owing to circumstances. The projections can allow us to show industrial applications of facts studied by us. These projections, however, in purely cultural teaching can only be founded on simple scientific phenomena and can only be developed by means of systematic teaching of the applied sciences. It follows that in the projection what can form an object of representation is the experimental fact pure and simple, with particulars, which goes to show that the cinema cannot in reality properly illustrate and give a complete understanding of phenomena.

In the case of mathematics, we can use luminous projections for showing the students exact figures, changes and results of operations. Projections on a flat screen can only give an idea of flat figures. On the other hand, the mathematician takes little care of the exactness and the results that can be drawn from figures. His aim is not to draw conclusions, but to demonstrate or prove, not to teach how to observe but to reason exactly, even if the pictures projected are false. For the mathematician, every figure is false for the simple reason that it presents a certain thickness and reality. He would like to work with ideal figures, the concrete representation of which is merely a means for assisting the senses to understand them better.

In secondary teaching, geometrical figures remain continually simple, and elementary geometry only deals with the study of changes of position. If the student wanted to have a complete pluri-dimensional composition, nothing would be easier for him than to make his drawing on a sheet of paper, fold it, cut out the necessary figures, and put the pieces together. For spatial geometry, similar systems can render services which are incomparably superior to those given by the cinema.

It may also be considered advisable for teachers of literature to make their lessons

more lively and efficient with suitable illustrations, while teachers of languages can in the same way utilize projections for pointing out the objects of the lesson and for teaching the pupils something about the country whose language they are studying.

This question has been dealt with so far with but small success in books and scholastic manuals. The motion picture has not been used with much success here. This is because, for the explanation of literary texts and for learning language and letters, neither lantern slides nor films have shown themselves equal to the occasion, or the demands put on them by the teacher. Anything in the nature of abuse or exaggeration here would be a source of danger. The illustration of printed texts and manuals should be kept within proper limits and avoid distracting the pupils from the essential thing, which is, after all, the study of the text. With regard to imparting a knowledge of foreign countries, the teacher of living languages may very well have recourse to the teachers of geography.

Special Qualities Required of Apparatus for Teaching. Rules for Projection Halls. In all the halls in which projections are made, it is necessary that arrangements be undertaken to obtain the greatest darkness for the screen and a subdued light for the part of the room where the pupils are assembled. Supervision must always be maintained, even if the teacher's presence renders it unnecessary. This is in order to avoid accidents that are not always easy to foresee.

The means for the obtaining the foregoing conditions are:

1) A relatively small screen, and therefore a relatively small projected image, which will gain in luminosity what it loses in size. It will also gain in intensity. The difference in strength between the light falling on the screen from the illumination of the hall and the light of the projector thrown on the screen should be as great as possible so that the interference is negligible.

2) Various methods are known for preventing the diffused light in the hall from falling on the screen, such as blinds at the windows, shades over the electric lamps, black cloths around the frame of the screen. These measures can vary according to the size of the hall.

The distance between the machine and the screen should be reduced as much as possible so that apparatus and screen are as near as possible to the teacher. This, in order that the teacher may indicate on the screen the most interesting points while the machine is some distance away from the students. The projection ought to be thrown on an opaque or transparent screen, according to the arrangement and size of the hall. Class projections are somewhat different from those made in public cinemas. It is well to stress this, so as to avoid the pupils making any mental comparisons which might be all to the disadvantage of the teaching film and the lessons.

The motion picture ought always to be ready for use at any time the teacher wants to use it. It should be kept beside the lantern for the stills and the microscopic projection apparatus, so that quick change-overs can be made. The same screen should be used for all the different types of projection. This avoids overcrowding the hall and reduces the expense.

There is no need to add any special gadgets to adapt the ordinary projector for school use. It is best that the projector be exactly like ordinary projectors sold in commerce. This makes it easy to get spare parts quickly, and avoids experiments with new models being made at the expense of the teaching and educational film. The arc light which is always difficult to regulate should be substituted by an incandescent lamp. All safety regulations should be scrupulously observed.

Mechanism for stopping the running of the reel need not be considered as indispensable if the school has also a lantern slide or still projector, while distance control is useless if the machine is to be within easy

reach of the teacher. These, in any case, are secondary details which must be considered case by case.

Much more important are the conditions to be observed in the matter of the film which are different from ordinary pedagogic conditions. Non-inflammable films stock must be used to avoid the risk of explosions or fire. The apparatus will be placed and the films kept on the desk or table for experiments where there will probably be one or two Bunsen burners or gas jets for experiments: all of which are dangerous in proximity to the film.

The length of the films ought to be on the average about 100 metres and the duration of an animated projection in the course of a lesson lasting usually one hour — which means actually about half an hour of effective teaching — should not exceed some minutes. This, it can be seen, is the right length of time when we consider that the film's task is to supplement the teacher's work, and not to substitute him. I have found this length of time suitable since my first attempts on these lines in 1911, and it has generally been followed, as far as I know, by other teachers of natural science who are anxious to arrange a series of films to be projected on these lines.

As a result, we shall find that in teaching zoology we shall only want about 30 films of 100 metres each, while botany and geography can be taught with 20 films each. This makes a total length of about 5,000 metres of film with an approximate cost of not more than 18,000 francs — by no means an excessive overhead expense for an ordinary *lycée*.

The films can be obtained from the producers and the cinema experts.

This system, however, would not give satisfactory results, as with a minimum number available of a given film, the teachers would be obliged to project the same picture at more or less the same time, nor would it be practical to have many film libraries for just as in a library it would be necessary

to have many copies of the same books, so a large number of duplicate films are needed for a film library.

Thus it is better to decentralize the organization, and place the copies of the same films in the various places in which they are to be used.

A big college in which each film is projected seven or eight times a year, can without difficulty obtain a complete collection. The less important schools would have smaller collections and between them and the secondary schools a scheme of exchange might be arranged according to the necessities of their programmes and, in this way, everyone would have the advantage of seeing the moving pictures.

Efficacy of the Cinema in Teaching.

Cinematography is one of the most useful means by which to gain knowledge, to develop the power of observation, and to exercise the other faculties of the mind. It is difficult, however, to define its exact part in this work. Its outstanding characteristic is its power of reproducing fleeting pictures which must be taken in at a glance. If the pupil is too slow, there is danger of the image shown passing before he has begun to observe it properly. This has the advantage of teaching him to be quick in observing and also to discover the inconvenience of not paying attention or of being absent-minded.

It is necessary however, not to overdo the use of the cinema, but to find other means of teaching observation that will give the pupil the habit of patience, a most valuable quality in the acquisition of knowledge.

On the other hand, the short film cannot cause either visual or mental fatigue which would be inevitable in a too extensive use of the cinema.

Teachers and Teaching. Collaboration in the Didactic Film.

To teachers of natural science accustomed to every kind of practical work and important and delicate operations, the teaching film is merely a toy, but to teachers of history and geography which are for the most part literary subjects, it is quite otherwise. In any case, a practical knowledge of the management of the cinema and its projecting apparatus should form part of the master's technique. The Higher Normal School of Natural Science has for some fifteen years maintained this system. It has already been shown that in the use of the cinema complete agreement on pedagogic principles amongst teachers is important.

When a definite understanding is reached on these principles, the masters can collaborate with the manufacturers and producers and explain their desires.

Apart from this, they can also extract from films made for the ordinary public those elements that may be useful in a teaching film, omitting all that is superfluous, and tabulating the results in exact didactic order.

There is sure to be much that is unnecessary in these films, and the only difficulty will be to choose the suitable material. When this work is done, the producers can proceed to edit, give titles and subtitles, and with the usual technique of mounting, will be able to make presentable films. The scholastic cinema cannot be considered a very profitable branch of the industry, but it will contribute largely to the education of the public.

It is necessary, however, in the use of the cinema or any other auxiliaries of teaching, to maintain a just balance and keep things within their right limits, always having in view the wisdom of the Romans, which is embodied in the saying *est modus in rebus*, the truth of which has always been understood by teachers.

THE CINE-EDUCATIONAL ACTIVITY OF THE SVENSK FILM INDUSTRY

In the autumn of 1921, after preliminary preparations, the *Svensk Filmindustri* added another branch to its activity, namely the educational film.

This branch began with a stock of 500 films, chosen with special care, and the collection was added to until its number reached nearly 2750 films. The last general catalogue with its two supplements gives a description of the archive. A new general catalogue is in preparation.

The films are all chosen from the pedagogic point of view and with special attention to the plan of study adopted by the Swedish schools — and especially to that of the elementary public schools.

The material used for the Swedish educational films has been drawn from the educational production of all the European countries and to a certain extent from that of America. In the first place, however, the Filmindustri Society contributed more than one thousand films that have toured in Sweden, in addition to those which the Society itself has sent out to other European countries and in fact to countries all over the world. This educational branch of the Society of the *Filmindustri* has reached a considerable development.

In the first year it was calculated that about 500,000 «pupils» had attended the film lessons. In a few years these figures were multiplied by ten.

The economic crisis somewhat arrested this development and even in certain parts caused a decrease in the number of the spectators of the films. It seems probable

now, however, that this tendency has ceased, and that the numbers may be expected to take an upward curve. It is calculated that in the coming season the number of «pupils» may amount to four millions.

The greater part of the spectators are doubtless drawn from the state schools; but various types of elementary schools, technical schools, social and ecclesiastic societies, hospitals and similar associations also make use of the educational films. They are also used at lectures and for propaganda purposes among various associations. The circulation of the films comprise about 1500 centres, scattered in the various provinces of Sweden.

Normal size silent films only are used for the educational films. Except in exceptional cases the educational institutes do not in general make use of the reduced film as that size does not adapt itself well to teaching.

On the other hand, some educational institutes have been able to furnish themselves with a sound apparatus, thus adding sound films to their programmes.

Regular class teaching has been arrived at only in few cases, and this when the conditions were especially favourable. In the larger cities, as in the big provincial centres, it has been possible to subdivide the pupils in classes for film teaching, putting together the students of the same grade in special class-rooms in their own schools, while in other instances a local cinema hall has been hired for the purpose.

In the country districts too, it has been

possible to make provisions for film teaching up to a certain point. The problem has been solved in certain provinces by the use of travelling cinemas, with programmes chosen by a special committee of teachers. These travelling cinemas cover more than one hundred schools.

The communes generally pay a certain sum as a part or supplementary contribution towards the expenses of the projections, while in other schools it is the scholars themselves who pay a small sum. Sometimes the projection of educational films is financed by making public projections in the open before a paying public.

To begin with, the *Svensk Filmindustri* did not ask any subsidy of the Swedish government for film projections having an educational aim, but urged the duty on the various educational institutions of the country to support educational films by placing the supply and production of such pictures on a proper and regular basis.

The superior pedagogic authorities have shown themselves to be of the same opinion,

and have presented requests to the government for school subsidies for each district in proportion to their expenses for the use of films of this nature. In view of the financial conditions of the Swedish state during the last few years, the proposal has not yet been laid before Parliament and therefore no subsidies of any importance have yet been paid by the Swedish government for the projection of educational films. Neither are such films exempt from customs duties, though they are censored without any expense to their renters or exhibitors.

The director-in-chief of the *Svensk Filmindustri* is Mr Olaf Andersen. The educational film department from its beginning to today has been managed by the ex-chief state censor Mr. Gustav Berg, who is also the editor of a review for the educational and instructional film which is issued every three months, (formerly it was a monthly). Each number of the review contains a summary published alternatively in English, French and German.

CINEMATOGRAPHY AND SECONDARY TEACHING

BY

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Method to be Employed in Film Teaching.

At the present time secondary teaching uses teachers and books.

The one would be useless without the others. The text-books vary according to the pupils' age. Different teachers obtain identical results with opposed methods. The same professor will obtain results which will be proportionately better as he makes better use of his method, adapting it to the age, character and capacity of the pupils which vary considerably from year to year. In film teaching, since the objects are the same, there is no reason to follow different principles.

We should not then reject, *a priori*, any form of projection: silent or sound film, after or even before the lesson. Without going so far as to say that all these forms and methods are admirable provided their results are good, we can at least admit that many of them deserve serious consideration, and that the results would be more satisfactory if one could continue to use them alternatively. Experimental film work is still in an early stage. We have still to register with exactitude the reactions of our young public, accumulate the observations made, and vary our methods with due prudence. The laws on film teaching will be laid down later on. Anything sectarian or too dogmatic in this connection would, at the present moment, be harmful and unjustified.

From experiments which I have witnessed and from those made personally, I am able to draw the following conclusions.

Teaching with the film alone is a thing

not to be entertained, and we must remember that there are *several* methods of film teaching rather than one method. The processes must vary according to the age of the pupils, the object of the teacher, and according as he considers the motion picture an aid or a momentary substitute.

We must divide the pupils into categories for the very young (sixth and fifth grades), medium age (fourth and third grades) and advanced students (first and second grades) mathematics and philosophy. The grades or distinctions are based on a recognition of the knowledge and physical and mental capacities of the pupils which differ considerably from one age to another. In very young children, the attention is less continuous, fatigue comes on more easily, while the spirit of observation though developed, is chaotic. The reasoning faculties are embryonic. It may be admitted at once that there is less difference between the medium and the advanced pupils than between them and the youngest pupils.

The projections which give the best results in the sixth and fifth grades in those classes, that is, where the teaching consists of a process of acquisition or observation are brief ones (ten minutes at the most) or fragmentary projections.

a) Fragmentary projections reveal to the spectator on one occasion a small number of facts in a complete and clear way. For pupils of this class films on geography and natural science are very suitable. A picture on volcanoes, for instance, in three parts is useful.

1) The first part shows types of volca-

noes, cone-shaped ones like Vesuvius, and volcanoes without exterior craters like those in the Malesian archipelago.

2) A complete series of the phases of an erupting volcano: smoke, explosions, throwing up of rocks, stones, lava, pumice, dust. Lava flows of various kinds, acid, slow, basic or rapid.

3) The effects of an eruption: burnt vegetation, collapse of buildings, burial of houses under lava, rock, etc.

If the picture is projected right through without interval, the children's intelligence is chiefly held by the final scenes or by some detail which has struck them especially. We must therefore split the projection up, as we have indicated, into three parts.

Part One. Volcano Craters. The teacher or the sub-titles of the film will begin with a brief explanation of this part in order to give the spectators an idea of the subject. Thus the teacher can say, for example: «The volcano is a conical mountain, the summit of which is like a large funnel and is called a crater». The study of the volcano should be a complete one, and should show the subject of the lesson in long shots, medium shots and close-ups. The size and shape of it should be shown by marking shots all round it slowly, so that its form remains well impressed on the memory. The climb up the volcano should be shown up to the crater and illustrated so that the pupils get a good idea of its height and inclination. The volcano ought then to be shown from above with a tour of the crater, pointing out the depth of same and noticing ash, lava and other deposits on the sides, as well as smoke-holes and any lake at the bottom of the crater if such exists.

The teacher need not be afraid of going slowly, or of using the slow motion projector, though the latter should not be abused. Anything superfluous that distracts the attention should be avoided. A film conceived in this way ought to show the pupils everything they require to know about volcanoes, and the great majority of the child-

ren will have taken the lesson to heart in its essential details.

b) The projection should be brief, with pauses and should be followed by an interval. - We can examine a film at leisure and at our pleasure by making use of the slow motion projector and stopping the running-off at any point. This permits a scholar who has not taken in the film at the first vision to grasp it and understand its details and rhythm.

The projection should not last more than ten or at the most fifteen minutes.

The teacher must have full control over his class. Darkness leads to disattention on the part of the lazy pupils, and gives the bad boys a chance to play tricks. It is, moreover, a mistake to suppose that projections amuse all children. There are some who on account of the droning of the reel, the darkness, the confusion of endless images on the screen, or on account of the heavy atmosphere of the cinema hall or class-room end by falling asleep. Breaking up the projections with intervals puts an end to this.

Absolute silence must be enjoined on the youthful spectators in order to hold their attention and to avoid endless absurd questions of all kinds which would only cause a loss of time and confusion if the teacher attempted to answer them during the projection. On the other hand, if the master is tired of the content of the film, not so the scholars, for whom it is something quite new.

They are also never passive, and the projection of so many marvels arouses in them a certain amount of eye strain and fatigue of the imagination, judgment and sense of comparison. These various forms of fatigue must be reduced to a minimum, giving the brain a chance to rest while tongues can be set free to ask questions of the teacher.

The projection certainly requires some explanatory comment. What has been seen must be described by the pupils in order that the teacher may be sure it has been fully understood and seen. He should demand a summary of the lesson, and insist

on the pupils making a drawing of the crater for him. The second part of the picture should be explained in the same way as the first, and this completes the demonstration.

The foregoing takes it for granted that, at least for the very young children, the projection forms a supplementary part of the lesson and in consequence takes place in class at the same time as the lesson itself. I have always obtained, both with slides and motion pictures, far better results with this system than by illustrating with a film a lesson given some time before.

Silent, sound or talking film? We must be careful to distinguish the talking from the sound film. The sound film reproduces sounds and noises; the talking film when we are using a simple « documentary » made for teaching, completes the picture with a lecture or explanatory comment. When we are dealing with a commercial picture used partly or altogether in the class-room as a documentary, the talk fills out the film with dialogue or comments, the best that can be said about which is that they are generally puerile or stupid.

I do not think it is advisable to use talking films. The dialogue distracts the small spectators: the lecture or comment (and especially long and pompous words used therein) may easily not be understood or create a wrong impression.

The silent film allows us to adapt our comment at pleasure according to our audience and circumstances generally. I am in favour of the sound film provided the sounds or noises are neither superfluous nor so strong as to absorb all the pupils' attention. With regard to the film on volcanic phenomena, the picture showing the volcano itself should be a silent one, but the part that deals with eruptions may well be a sound picture since it is useful for the children to learn the sounds that accompany eruptions. If it is useless to reproduce the howling of the tempest when a picture is shown, on the « Aspect of a Mountain »; on the other hand, it is useful to reproduce the

roar of machinery in a picture on a factory, the noise of the sea in a film on « Seas and Coasts » or the trumpeting of an elephant in an elephant film.

For middle schoolchildren and advanced students, the case takes on a somewhat different aspect. Theoretically at least, they have more experience, and some aptitude in observing, reasoning and comparing. What the film contains for them is not entirely new, and in their cases fits into a series of already formed cognitions. Thus they are less easily tired, and projections can be longer for them.

At the same time, in my opinion, it is harmful if not dangerous for them to last over 20 or 25 minutes.

First, because the questions of discipline and fatigue already mentioned, if less urgent for them, are still important.

Then for the reasons just stated, because pupils of the middle year classes have a tendency to remain passive before the film as with almost any kind of teaching. This tendency is accentuated in the advanced students to the point that some teachers are of the opinion that students become more obtuse the older they get. It is at any rate a certainty that the goad of novelty wears off with age, the power of observation diminishes, or else — which comes to the same thing in the apparent results — the pupils keep their reflections to themselves and remain silent. Lengthy projections favour intellectual laziness and day-dreaming.

In order to excite the pupils' intellect, shake their apathy and oblige them to frame questions and observations, we must show short films on given subjects.

The intervals should be used to ask questions, and, if necessary, to give explanations. The projection can be suspended, and the interval used in the foregoing fashion.

For pupils of the superior schools, other systems and questions come into play, such as what are the ends for which the teacher hopes to use the film.

For the teacher, the film may be employed as:

1) *A supplementary source of information calculated to enrich the documentation arrived at in the course of the lesson.* In this case, there is nothing against having the projection at the end of the lesson and in a different place from the class-room. In this case, however, the comment should be reduced to a minimum, unless we want to have a mere repetition of the lesson itself. It should only deal with an explanation of facts not touched upon, or insufficiently touched upon, in the course of the lesson. In the case of facts confirming those already illustrated in class, it is up to the students to comment them.

The following are typical of projections of this kind:

Rice-growing;

Manufacture of steel in heavy industry;

The life of Bees.

Let us not forget, however, that the task of secondary teaching is not only that of allowing the pupil to acquire cognitions but especially of developing his reasoning power, his spirit of observation and his critical faculty. Thus the motion picture can be considered:

2) *As the subject of a regular exercise.*

This applies to numerous films which deal with physical geography (volcanoes, eruption, glaciers, valley and rock formations, uneven ground, etc.) and human geography (configuration of villages connected or scattered, centres of humanity, types of dwellings). They help out the study of maps, and can sometimes take the place of geographical excursions, grouping before the pupils' eyes facts which they are not able to observe because they are too far off, or take place too rapidly or too slowly. Some professors believe that that the fixed projection or the study of drawings or illustrated post-cards are to be preferred to the cinema projection, but I cannot agree with them.

To sum up my remarks on fixed and moving projections, I should like to say that it is only the latter which can give a proper idea of movement and dimensions without which factors it is often impossible to re-

present a geographical phenomenon. (We cannot see the operation of water with a fixed projection, for instance). It is only in this way that the projections completely represent a fact seen in the whole and in its details. (Cf. the description of volcanic apparatus). The stopping of the picture allows us to get over the disadvantages of the too rapid running off of the motion picture.

Admitting all this, I have obtained and I have seen others obtain, in the case which interests us, good results by proceeding in the following fashion in three stages:

1) Showing of the film with brief indication of the points to which the pupils' attention should be drawn. Stopping of the picture now and again at the important points.

2) Lesson by the teacher with references, explanations and comments to the examples shown in the film.

3) A second projection of the film with comment by the teacher or the pupils may supply this comment themselves. Frequent pauses and intervals for study and questions.

The projection can be given in a room apart from the ordinary class-room. At the same time, it is always better that the projection take place in the class-room if possible in order to avoid loss of time and the disorder inevitable on moving students from one place to another. Film can be silent or sound, but should not be a talking picture. At the most, brief explanatory sentences can explain the plot or idea and guide the pupils.

3) *Finally, in certain determined cases, the film can momentarily take the teacher's place.* Let us say at once that films of this kind are rare, and many of our colleagues are in violent opposition to them. There is therefore nothing to be ashamed of in saying that some lessons are almost impossible to give with the insufficient means available to a teacher in an ordinary class. This is the case because such lessons require delicate experimental work, and a talent for drawing on the blackboard which is gen-

erally far beyond the capacity of the ordinary master. The result, whether we care to admit it or not, is that such lessons are a failure. Nothing remains in the students' minds except perhaps false ideas, which is worse still.

I am thinking for example of a chemistry lesson on the manufacture of steel. No description, or example can ever approach the reality or give an adequate idea of it. Only the motion picture can do this. In geography, let us take the case of lessons on earthquakes and how to explain them on paper and with the blackboard — a most trying thing for teachers.

Good films or animated drawings would teach a thing like this much better than all our oral lessons in the course of which we torture our brains to find new ways of demonstrating that will be clear and adequate.

Since in instances like these we are dealing with a regular scientific demonstration, I think such films should be talking films, that is, the explanation should come off the sound track, this being the only way to obtain a perfect synchronization between comment and image. All verbal explanations are generally either too long or too short and can cause great confusion.

This does not mean that all teaching films should be talking films, but in a case like that to which we have just referred we must not, out of false vanity, hesitate to give way to a lesson better handled than our own lesson.

In the case in point, the projection might be given in a special location, but it is always advantageous to give it in the classroom where there is a blackboard on which the pupils can write. Again, if the film in question can be projected a second time, it will be advisable to run off some of the parts which have been less well understood either because they were projected too rapidly or because the explanation which accompanied them was of too abstract a character. In this there will be the advantage of being able to interrupt the projection after each demonstration or explanation. The

teacher can then take on the full responsibility of his tasks and adapt the demonstration and comment to his audience.

All the foregoing presupposes, naturally enough, that the master has a thorough knowledge of his picture before screening it. The film must not be, as sometimes happens, a sort of recreation and period of repose for the master. This only tends and very considerably tends to discredit the teaching film.

To conclude, I should give it as my opinion that the various methods and innumerable combinations suggested demonstrate with a sufficient degree of certainty that the film cannot assure the whole burden of teaching but can only form a useful and advantageous part thereof. Handiness is the essential condition of successful film teaching. If the method is allowed to become clumsy and over-elaborate, the system is condemned to failure to still birth, if we may say so.

This presupposes that the motion picture, forming part of the pedagogic equipment must, like the book, be adapted to the needs of the each class of scholars.

I will come back to this subject later on.

Fixed and Moving Projections and how to Use Them.

This subject is a matter of ardent controversy and polemic. It is my firm belief this comes from the question having been badly posed. There is no reason why fixed and moving projections should mutually exclude one another. They are as a matter of fact complementary to one another.

What are advantages and faults of either?

Cinema projections pass too rapidly across the screen. We must recognize that this is a defect of the motion picture that has grave consequences, but at the same time we must look for a remedy rather than cast the process overboard. People did not give up the steam locomotive because, in the early days the chimneys or smoke-stacks were too high and unsightly.

Fixed projections render the same service as illustrations in books, drawings, photo-

graphs, but they possess pedagogic advantages of their own. They are larger in size are more easily seen, and offer a better opportunity for the study of detail.

They cause less distraction because they are shown alone and not as part of a whole like a book which can be glanced through secretly. They thus give the child an opportunity of examining the details of the picture and the master a change of proffering an adequate explanation.

As we have seen, in moving pictures the slow motion projector or the arresting of the running-off of the film permits us to examine details by degrees. There are machines in existence today which, without wearing out the film, allow us to stop the picture or slow it down according to our pleasure.

The choice of fixed projections is necessarily somewhat limited.

Arresting the run of the film and holding the image, as well as the slow motion projection give the teacher a wide field for his choice of the particular image he wants.

The fixed image has no value when it comes to representing a fact in which movement is the prime factor, such as the crash of a wave on a rock, the variety of the current between a torrent and a calm river, the jumps of a kangaroo, the movements of an elephant, or the trotting of a horse. We can pass as many still images of movement on the screen as we like, but we shall never arrive at giving the pupil an idea of a complete motion in this way.

It is only the motion picture which can reproduce movement in totality and in its various details.

It is my belief that the fixed projection does not give as complete and exact an idea of dimensions as the cinema. Out of curiosity, I have sought to make children estimate the width of a glacier, a river, or the height of a volcano or the area of a garden by showing them fixed and moving projections. The replies, it must be admitted, were often incorrect with both systems. In the case of the replies based on a vision of slides,

they were absurd (a glacier two yards wide, a mountain 20 yards high). The same could not be said of the film results; the errors being due to a simple miscalculation of altitude and other dimensions. The estimates came within the bounds of probability: 100 yards or 260 for the first and 500 yards for the second: while the actual figures were 600 metres for the glacier and 750 for the mountain.

Does the film then possess special means for expressing dimensions? It does, and the means is to be found in movement. Following the lens, we follow the avenue which leads to the bottom of the garden. With the film we actually make on foot or in automobile or on a ropeway the ascension of the mountain, or we cross the glacier. It is according to the time, be this short or long in the judgment of the child that the projection of these climbs and marches takes that he estimates the distance in width, height or depth. This period of time he translates on a system of his own in figures that correspond.

We may add that it is only the motion picture which is equipped with movement that permits us to see things in all their true aspects. It is only the motion picture through a multiplication of photos of the same object which corrects the errors of perspective existing in a photograph taken from one point which is not well always chosen. Only the sound film can express the sounds and noises which, as we have seen earlier, alone render a complete picture and reproduction of a fact event or phenomenon, such as an eruption, the course of a torrent, a factory at work, galloping horses. It is only the film which can give the sense of relief and distance.

The connection of these two processes is on the other hand often desirable. In the history of art, for example, the reproduction of an ancient statue can be given with a lantern slide, but the excavations where it was found should be shown with moving pictures. In a lesson on palaeontology the fossil can be illustrated with a slide, but, in zoo-

logy, the cinema should show all the living animals of the various species.

The motion picture thus seems to us to possess such admirable advantages that its defects — and we admit there are defects some of which can be corrected — will not persuade us to renounce this form of projection which in our opinion, represents life in its totality and fullness.

**Repercussions from
the Use of the
Motion Picture
in Teaching.**

The cinema has not yet become of sufficiently common use in teaching for us to state with precision its effects and still less with any certainty the results of its programmes time-tables, etc. One cannot do more here than guess and estimate. These results must vary greatly in different subject matters.

It is, however, now possible to draw conclusion similar to those at which many who make regular use of the motion picture in teaching have already arrived, conclusions which would seem likely to become transformed into laws.

Children acquire cognitions more rapidly with the cinema than with oral or text-book teaching. They understand much better what they see when it is screened before their eyes and they remember it with less effort. This doubtless depends on the fact that sight is the most highly developed of the senses with the majority of children. Must we then — since we possess a rapid and sure system — reduce the school hours and modify the curricula?

Not at all. The time gained in acquiring cognitions is lost in other ways. If cinema teaching is to exist, it must not be superficial. It must look after details, show facts phenomena and events completely, leaving nothing to be guessed at or supplied by the child.

The seeing of a film illustrating volcanoes will certainly require more time than a corresponding oral description, which will inevitably be incomplete and lacking in colour and vividness. A visit or an experiment will also be a lengthy operation. The

use of the motion picture will certainly improve scholastic results. The pupils will be more thoroughly and better taught, their instruction will be more intelligent and profounder, but time will not be saved. It will have to be allotted in a different fashion.

If the time-tables have to be changed — we must make no mistake about it — they will be lengthened. The time that may be gained — and we propose to discuss this shortly — will be on the home work given to the pupils and in study.

It is unnecessary to add that curricula cannot be made any heavier than they are at present without running the risk of encouraging superficiality, a defect which already exists in our present system. It would indeed be a good thing if the curricula were shortened somewhat, and study made more thorough and profound over a limited number of subjects.

As to text-books, their fate will depend on the special subject they cover. I think they will tend to dwindle in size, and their tasks will be modified. Descriptions and accounts will disappear, and will assume almost the form of indices with brief summaries of facts. Concatenations of events will be registered, and the books will be enriched with numerous pictures and photographs, and will contain exercises on films projected to the pupils.

I can clearly foresee the day when the history book will be reduced to a precise summary, with dates and names, brief explanations of important events, their causes, and, for the advanced scholars, texts and exercises in comparison and the formation of opinions. The geography text-book will be furnished with maps, diagrams, practical exercises, type excursions, observations, studies and numerous photographs. This does not mean that all the films will be made at the same time as the text-books, but the films will form a bibliography, like the books of today, which the authors of text-book will be able to consult for the preparation of their exercises.

Will the resulting text-book be a very

poor and miserable affair? Shall we go back to the time when text-books were not much more than lifeless enumerations? I do not think so because the text-book will not primarily be a book to be read and learnt by heart like the text-book of today. It will be something like a support, a help, a sort of guide. If it becomes skeletonized, this will not be any disadvantage, for the variety of its contents will suffice to keep the mind interested. Its comprehension will no longer be based on colourless words, but on pictures actually seen and created by the words themselves.

A system like this will greatly facilitate the pupil's home-work and class studies, for it will prove desirable that many of the exercises be done in class. I am pretty well certain that in the case of geography and natural science, the work will be greatly reduced. It may be argued that teaching will be dangerously levelled down owing to the fact that the films will be the same for all countries and certainly the same for all ages. This is only superficially true. The same motion picture can be adapted to different ages in the same way that a text-book for the first grade can be altered and modified for the sixth grade, though the process is not a desirable one to follow. It will always be better to make special films for each class or grade. If the film is to be the same for the whole of France, is this not already the case with the text-book?

Teachers and scholars are always changing, and their reactions and comments will provide infinite variety, where at first glance it might appear there was a risk of monotony.

In a word, it is teachers and children who will work, and not only the teacher as often happens today.

Useful Subject-matters for Filming.

First of all, we have natural science and geography, subjects which deal with material aspects of life in their forms, dimensions, movements, sounds and transformations, which require the best expression that

can be given them, and this is undoubtedly the motion picture, whether silent, talking or sound. What we have already said sufficiently illustrates this point of view, and it does not seem to me necessary to insist thereon further.

The cinema can accomplish its instructional task especially well in the case of the two before mentioned subjects.

There are, however, other subject-matters which could be used for film treatment with advantage.

1) *Physics and Applied Chemistry.* - These can usefully be illustrated with projections of factories, laboratories, mines, experiments that are too difficult for personal repetition in the school laboratory, the use of complicated and non-dismountable apparatus with explanations of the single parts after the working has been explained with animated drawings.

2) *History* has less need than geography of the motion picture. Great care must be used in teaching history with the cinema if one wants to avoid a sense of partisanship creeping into the picture, even involuntarily. This applies especially to great historic events, the lives of famous politicians and partial or total subjective historical reconstructions. The atmosphere of an epoch can be recalled with evident benefit and scenes screened which help to understand the past. Certain scenes in *Ben Hur*, for instance — the naval battle, the chariot race and the miracle of the wolves prove that this kind of atmospheric reconstruction can be satisfactorily used in proper circumstances.

3) *Gymnastics and Drawing* can be taught with the motion picture which can show up wrong athletic movements, analyse movements, and demonstrate effects of perspective, showing the effects obtained by draftsmen and even painters.

4) *The History of Art* does not lend itself particularly well to teaching by the film. The reproduction of pictures, sculpture, furniture, costumes, and various still objects are more usefully illustrated by the fixed projection. Certainly it would be interesting to see

characters in costume acting in a scenario of the time of Louis XV. But we enter here into the department of historical reconstruction, and are not dealing with the history of art. The sight of excavations, the technique of artists and architecture could all take advantage of the cinema, for we are dealing in these cases with expressions of movement, dimensions, life. The monument does not stand all by itself, but depends to a degree on the site where it stands. The feudal castle, the Gothic cathedral can only be properly understood by seeing the places where they rise. It is only the motion picture which can assemble all these things for us.

5) *The Film's Task in Literature* seems to be limited to reconstructing the lives of literary men in such a way as to help us to understand outstanding points in their works. It is useful also for the reconstruction of theatrical shows in all epochs. So too the motion picture may be usefully employed for the reproduction of contemporary dramatic works or rather certain scenes in particular. The changes of scene, the facial expressions, the actors' gestures will all help to an understanding of the text.

In these last cases the talking film should be used naturally. It will engage two of the senses, sight and hearing, and prove vastly superior to mere photography which some people think is quite sufficient.

6) *Finally, the study of dead and still more living languages* will find a useful ally in the motion picture.

Talking films employed with frequent use of the slow motion projector and animated drawings show with precision and plenty of details the position of the lips and tongue as well as the movements of the pharynx in pronouncing sounds. Films reproducing costumes, landscapes, etc. could render certain aspects and the type of the population familiar to students of the language of the people projected on the screen bringing them in a way nearer to the students and making them more actual and alive. Such added knowledge might result in greater application to the study of the lan-

guage. Such language pictures should show genuine Germans or Frenchmen or English on the screen, all of whom would talk naturally as they do in real life, though of course, not too rapidly. Pupils will accustom themselves to the sound of the foreign tongue, and will understand it more rapidly, catching the shades of meaning and inflection, as well as even dialectical differences.

The Cinema as an Instrument for Scientific Research.

I cannot deal here with a question which goes considerably beyond my province.

At the same time, I will add something from my own personal experience.

I had to prepare a thesis for a degree on a scientific subject, and I had carried out a certain number of researches of a scientific nature in physical and human geography. These researches concerned mountainous regions in Eastern Rumania near the Danube and the Carpathians, in the district called the Benat. The distance and cost of a trip to the district meant considerable delay and expense, and it was out of the question for me to make a prolonged journey of this kind. These facts made the use of the motion picture seem eminently desirable.

Morphological researches are based on a study of maps and the territory under examination, and special visits on foot or preferably on horseback is the best way to accomplish one's purpose. One gathers a documentary record of notes drawing and photographs. The notes are not always clear, and are often incomplete; the drawings are interpretations of a more or less faithful kind of reality; even the largest collection of photographs is not enough to give an exact idea of the territory under view. It is difficult to take account of errors of perspective which depend on a badly chosen position for taking the photographs. When one returns from the trip, one has to work with incomplete, sketchy material, and the memory has to be relied on too often to fill in details. Sometimes imagination takes its place. The result is that the work has either

to be done again on the spot, or inaccurate results are arrived at.

The employment of the motion picture here would allow us to reduce the possibility of error to a minimum, even if we cannot eliminate it. There is no need to say that the shots ought absolutely to be made with the same detailed care that goes to the compiling of notes on such an occasion or the making of drawings or photographs. Doubtless, the transport of the camera will turn the trip into something like a small expedition, but it will only be necessary to visit the places twice, once for a study of the ground and to fix the points of reference and a second time to make the pictures. Nor can we be sure that the reels of film will actually prove much more troublesome to carry than a bundle of note-books, drawings, photographs, etc. Films constitute documents which are much livelier, more copious, fuller and more homogeneous than a documentation made along the lines we previously mentioned.

Not all sections of geographical research lend themselves to film treatment. I am of the opinion that the following subjects can be advantageously taught with the motion picture.

Physical Geography: geology, strata, rocks, etc.

Morphology: general aspect of earth. Effects of glacial and fluvial erosion, study of table-lands, plains, terraces, heights and distances.

Human Geography: ethnography, costumes, dances, markets, transports, folklore. Agriculture and industry, works, customs, costumes, universal features and all forms of activity which have their origin in movement.

Quality of Apparatus. Plant for Schools. As I am not an expert in the construction of film apparatus, I will limit my remarks to indicating the various objects and parts which I, as a teacher should expect to find in

- 1) a cinema apparatus;
- 2) in a class-room.

1) *The Apparatus.* - The projector should be able to show standard films be light and portable, easily handled, silent, with good illumination, and should give steady pictures without flicker. This, of course, for the purpose of reducing to a minimum the possibility of fatigue for the master and eye strain for the pupils. The apparatus ought to be able to be attached to any voltage in ordinary commercial use, so as to avoid complicated transformers, etc. The machine should be able to be stopped instantly on any photograph, and for as long as is desired without the film running any risk of deterioration or catching fire. The film ought to be reversible so that a portion already seen can be projected over again if desired.

The apparatus should be enclosed in a metal case that should be completely closed so as to avoid the building of an expensive projection cabin, which is unsatisfactory from the pedagogic point of view since it separates the teacher from the pupils.

The apparatus ought to have provision made to include sound and talk. The loud speaker should have a clear tone.

2) *The class-room.* - The room should be large:

1) in order to offer every facility for clearing the hall when necessary.

2) so that it does not become overheated after a certain time.

Air conditioning or cooling systems can be installed with advantage.

The hall should have two ample exits, preferably situated at the opposite ends of the room. The doors should be fitted with means for easy opening and shutting, and be covered with curtains or sun-blinds. The hall should be led up to by stairs like a regular academic hall and should contain a black-board.

a) *For the Teacher:* it should contain a chair, a table and a reading lamp that throws all the light on to the table. There should be an electric bell permitting the teacher to call his assistant or operator — if he possesses one — to stop or restart the apparatus.

b) *For the students*: the hall should contain benches and desks with only two seats (to allow greater facility for clearing the hall). The desks will allow the pupils to make drawings and take notes during the projections. The best possible arrangement would be for each desk to be illuminated by a desk lamp like the teacher's.

The room need not be kept completely dark even during the projection. This is advisable in order to assist the maintenance of discipline and to make exit easy for the scholars in case of emergency.

If the desks have no illumination of their own, some form of indirect lighting should be arranged, which does not interfere with the projections. It is a good thing to place safety lamps (blue or red) over the exits.

It is always advisable to arrange that the current for the illumination of the hall and for the working of the projector come from different sources, so that there may always be light in the event of a temporary or partial cessation of power.

The operator ought to have a fire extinguisher at hand, and the teacher should be able to control two switches for the light, one at his desk and the other close to the projector.

A hall equipped in this fashion will allow the professor to handle the apparatus either alone or with an assistant, and it seems to me that two halls ought to be sufficient for a *lycée* of about 300 pupils.

Results from the Teaching Cinema. It is still difficult to know with certainty what results may be looked for from the use of the motion picture in secondary teaching. Experiments are too recent, too haphazard and devoid of proper method.

It must be admitted first of all that the use of the cinema in classes does not assist discipline; on the contrary, it is harmful to it. A teacher must have his class really in hand to be able to give projections in the dark, or even in semi-obscurity, for the latter encourages the scholars to play all kinds of tricks and jokes.

Projections tire physically and intellectually, and on this point there can be no doubt, as we have seen in the beginning of our remarks. We have analysed the reason of this, and suggested certain possible remedies, and there is no need to go over the ground again. If, in spite of these remedies and palliatives, the pupils show signs of excessive fatigue, it is not the fault of the projection nor the intellectual effort required, but depends on some weakness in the child.

I should now like to mention a point which does not seem to me to have been touched on or only rarely. If we admit that the use of the motion picture in teaching becomes general, the lessons which will be given to a large extent in the dark produce what are *a priori* abnormal illumination conditions for the pupils. Is this likely to prove a serious disadvantage? If the disadvantages are real ones, there is every reason that only short pieces should be screened and not entire films. Care must be taken that intervals be provided between two film lessons for recreation in the open air. Sunlight will be admitted into the class-room when it possible, and care should be taken to avoid running two cinema lessons too closely together.

With these precautions, there is no doubt that knowledge can be more quickly acquired with the use of the motion picture, and better impressed upon the memory. The child also derives greater pleasure from the lesson which is a pedagogic factor of some importance. For my pupils, I use projections on a decreasing scale according to the following subjects:

History of Art: taught without text-books, almost entirely with blackboard drawings with brief explanations and projections.

Geography History: Very few projections owing to lack of films. Ordinary lessons, books essays and reports by pupils, reading.

There is no doubt that the scholars prefer the history of art and decorate their exercise books with drawings and figures. They exhibit prodigious observation, and they bring me views of monuments known

to them so that I may help them in establishing the date, period, style, etc. The history of art does not require questions, notes or compositions, and their work is therefore purely disinterested because they enjoy it.

After the history of art what interests them chiefly is geography. History comes last in their affections.

Their sense of observation is certainly stimulated, disciplined and even excited by film teaching. That is, subject to following conditions: that we do not project for children pictures which are overlaid with facts, for the enthusiasm and excitement soon give place to a sense of discouragement at the impossibility of understanding, retaining and even seeing so many things at once. The children give the whole thing up and pay no detailed attention to anything.

It is useless to add that is absurd and criminal, intellectually speaking, to see, as I saw some weeks ago at Tourcoing, a society issue special invitations to children of the schools and *lycées* to witness the projection of eight «official» documentary films on Roumania, Czechoslovakia, Denmark, Switzerland, Norway, Sweden and Poland!

This was described as «being interesting for children of from six up» and was offered as a daily spectacle to be rounded out with two comic films! The result could only be disastrous.

In the children's minds, the League of Nations was assembled. All these countries were shown in a harmful kind of promiscuity. I am not even certain that the characters in the comic films did not belong to the category of the documentary.

Teachers and the Cinema. I think it is clear from the foregoing that the use of films or parts of commercial films of the type of travelogues or news-reels such as *Trader Horn*, *Symphony of the Virgin Forest*, *Africa Talks*, *Rango*, etc.) and even some ordinary pictures is as bad as can be. We are obliged to have recourse to material of this kind because at the moment we have little else. They are all subjects which can

entertain the public, but are useless and even worse in teaching because they hold the attention at the expense of the pictures themselves.

They are talking pictures, and the dialogue is generally tiresome. If there is any comment, nine times out of ten it is badly done. Any value the comment may have is often destroyed by a musical accompaniment. In fact, they are almost always constructed without logic, without purpose or method. They are full of long drawn out scenes or else the scenes are too short and incomplete. They are made under the pressure of artistic and profit-making ideas with more than a touch of exhibitionism in them; moreover, they contain harmful tricks and fakes. All this tends to render them useless for teaching, unless very special precautions are taken.

At the same time they need not necessarily be useless. They have a documentary basis of enormous richness which it would be a pity to lose. Why should these films, after having gone their commercial round remain in their producers' hands for capricious destruction? In the past, great documentary wealth has been lost in this way, regular film fortunes from the instructional point of view. Are we as rich as all that?

Why are not film manufacturers under the legal obligation imposed on newspapers and publishers to deposit a copy of their works? Such legal deposit of a silent copy of the film at the ministry of National Education ought to be insisted on by the law. There should further be a permanent commission established at the ministry composed of professors attached to the various educational grades and for the various subjects taught in the schools. The commission would examine the films deposited and decide which parts of them should be chosen for use in teaching, at the same time taking care of the re-mounting, and adding fresh sub-titles or, when necessary, providing a new sound track.

In this way, in two years, with little expense — in view of the enormous num-

ber of commercial documentary films being produced — we should provide the teaching cinema with a splendid film repository and stock of pictures of first class quality. Such films are often made in places, and under conditions beyond the reach of the teaching film. Such films would naturally be used to supplement courses of studies and for illustrating the same. Films in question would be most useful both for primary and secondary education.

It might be arranged that when a producer is making a big film in some far off region, an ethnographer, a naturalist a geographer or a specialist in art questions (I do not mean an artist) who were also at the same time teachers should form part of the expedition with a special assignment from the ministry of education. They would naturally have nothing to do with the making of the picture but would follow the troupe as observers with the right to request that a scene should be shot for them or that some supplementary rushes be made according to their suggestions and indications.

They ought to be professors of pedagogy and not scientists, journalists or artists, even if famous ones, because it is only professors of didactics who know the points likely to prove useful to teaching in a film or portions of a film. A few more metres of film shot in the course of a long picture would not mean much to the producers. And the result might prove excellent. Last year, in fact, the Fox Movie-tone did something of this kind, without exactly intending to do so. It would be a good idea if this firm found imitators in France.

It will be necessary to have at one's disposal different pictures for each lesson, films for all ages, subjects and grades or classes. We cannot look for one type of picture that will answer all requirements.

Close collaboration between film producers will always be necessary. The producer will look after the financial technical and artistic parts.

He will be the faithful executor with a very important task to carry out. Artistic films can also be teaching films. In this case, the producer must act as a guide to the teacher in helping him to choose points and angles for making the pictures, pointing out the advantages and disadvantages from certain conditions of light and various technical processes and possibilities that can be exploited in making good films.

The teacher or professor should prepare the scenario, since he alone knows the end it is desired to attain and the best methods for achieving it. He will draft the first plan of the scenario, note what pictures are to be made, and look after the mounting, that is, indicate the sequences and their duration and write the comment for sub-titles or the sound track.

The essential characteristics of the teaching film are:

1) It should be simple and as brief as possible, without any exaggeration in brevity, however, that might damage the clarity of the film.

We must not forget that our public of little people is an ignorant public, but very keen on learning and being taught. The film should be based on one or two essential ideas or primary observations.

2) It should develop logically according to a simple and methodical plan.

3) It should avoid any kind of *tendency* (no deformation or twisting of facts out of a sense of *parti pris*) as also any tricks or fakes that are not absolutely necessary. It should be, as far as possible, an expression of reality without comment, or any kind of political, religious, or moral bias.

4) The sub-titles or sound track comment should be brief precise, clear and with no long, pompous words that may be misunderstood or not understood at all. Technical terms should be written in capitals and pronounced slowly and explained...

INVESTIGATION ON THE EFFECTS OF TEACHING FILMS

BY

Dr. Karl Hareiter

VIENNA.

THE opinion of the film formed by teachers in Austria had already been made known at the time the Third International Conference of the didactic film was held at Vienna, from May 26 to 31, 1931. Among the reports presented on that occasion, there were some which spoke of the effects of the teaching film on the psychology of children, but these opinions were based on investigations made in 1928. Since that period, similar studies have been made by Dr. Ludwig Langweiser, Councillor of State and Inspector of Schools of the town of Vienna, Professor Ludwig Siegl of the Technical School of Bruck a. d. Mur, and Dr. Karl Hereiter, teacher in the Pedagogical Institute of Vienna.

These studies were made in regard to films which had been adapted for teaching requirements from industrial films and films taken from nature; and others such as the experiment made by Professor Siegl, which was personally produced by the latter for scholastic purposes. The result of these studies was to confirm the opinion already made known at the time of the Third International Conference.

a) *Langweiser Studies.* - In the volume published by the Works Committee on the occasion of the Third International Conference, to which we refer above, Dr. Langweiser presented an important report on his investigation, a brief summary of which will be of interest. The fundamental bases of this investigation were two films which had been altered for didactic purposes by the Austrian Association of the scholastic cinema, namely, «*The Treatment of*

Timber», which was shown to 331 boys and 353 girls of from nine to ten years of age; and the cultural film «*Simba*», which was shown to 154 boys and 191 girls of from eleven to twelve years of age, all belonging to middle schools. The following questions were put, after the projection:

- 1) what did you like best in the film?
- 2) what did you like least?
- 3) what would you have liked to see in the film?

Langweiser obtained the following results. Many of the answers clearly showed that the projection of the films had made a great impression on the children, but this impression frequently proved that their senses and fancy had been excessively stirred, a circumstance that might have dangerous results.

The number and variety of the answers showed that these two films are well suited for illustrating both the treatment and utilization of timber and the life of animals in Africa; and that, considering that movement is one of the most striking factors of these films, the projection served excellently to reach the ends aimed at, without the need of other didactic aids. The weak points and imperfections of the films were pointed out by the young spectators in the clearest way. What was particularly noted in the second part of the first film was that the cutting of the timber was not clearly shown, while the transport systems were very incomplete.

The pupils were satisfied to ask for explanations of some of the least easy passages, but some of them were so absorbed in the

vision before them that they refused to listen to explanations, while others were disturbed by the reading aloud of titles. It is necessary, nevertheless, to give suitable explanations, especially in the case of exceptional projections like those under consideration.

Many of the pupils continually evinced a desire to see the film over again or to have parts of it repeated. To a certain extent, that showed that the projection was far from tiring them, but it may also mean that they felt a need of seeing the pictures again in order to understand them better.

The most important result to be gained by inquiries of this kind is the discovery of the didactic and educational possibilities of these projections for the minds and spirits of children. An examination of the answers showed, in fact, that the influence of the instruction and education which the little spectators had previously received from master and parent was much more noticeable after the projection, especially as regards their understanding of the film as a whole and in its various scenes. All this opens a wide field of psychological study in regard to the parallels to be drawn between the impressions received from the projection and the typical individuality of different pupils.

b) *Siegl's Studies*. - Professor Ludwig Siegl has contributed an article on this subject to *The Austrian High School*, which is published as a supplement to the review *The High School Teacher*, of January, 1933, showing how he had been able to explain the mechanism of understanding to his pupils by means of a film he had prepared for that purpose.

He writes: «I showed this film to two seventh classes of a technical school, after I had been explaining the mechanism of understanding in my lessons for three months. Before projecting the film, I asked my pupils to write a short composition explaining what they understood by the mechanism of understanding, allowing them to make use of their notes and of the text books. I allowed them ten minutes for this task. Afterwards, I showed them the film

for the first time, accompanying it with a brief comment; and then a second time, without comment. Then I told them to write another composition on the same theme, allowing them ten minutes for the task this time also. It must be noted that this was the first instructive film of any kind that my pupils had seen, so that it constituted a completely new method of teaching for them.

«I obtained the following results with my 35 pupils:

«for 3 pupils (or 9%) there was considerable improvement;

«for 6 pupils (or 17%) there was a noticeable improvement;

«for 5 pupils (or 14%) there was a slight improvement;

«for 20 pupils (or 57%) there was no apparent improvement of any kind, partly because some of them had not a clear idea of what was wanted from the beginning. In any case, however, there was the indisputable fact that 40% of the pupils gained a more or less considerable benefit from the projection, which is the more worthy of note when it is considered that the film had been produced with very rudimentary means.

«I profited by the occasion to interrogate the pupils with the object of discovering their opinion of the film and of its didactic utility. To this end I asked the following questions:

«1) describe as faithfully as possible what you have seen;

«2) has your idea of the mechanism of understanding become clearer or less clear?

«3) what seemed good to you in the film, and what bad?

«4) what difference did you find between the film and your own experience?

«5) did the film interest or tire you?

«6) what experiments in physics, that you know, would you like to see in a film?

«7) would you like to see a film of this kind frequently?

«8) for what other subjects could the film in general be used with advantage? ».

We do not propose to give the answers to these questions, but the above explanation of the way the inquiry was conducted is sufficient indication of its value, and the inquiry is the more worthy of note, since Professor Siegl was the first to try it in the higher classes of secondary schools.

c) *Hareiter's Studies*. - Dr. Hareiter carried out an investigation, in agreement with the Austrian Association of the scholastic cinema, with the object of studying the effect of didactic films on children of different ages. To get at the results desired, it was found necessary to put the following questions:

What do pupils think of the films that are shown to them? Is it not the fact that this particular film is too long, and tires their minds? Can this film be considered as suited to the class to which it has been shown, and is it too full of matter or lacking in it? What difference is there between the lantern slide and the film, a moving picture which passes continually across the screen and gives rise to a continuous succession of impressions? What constitutes perception and the lack of perception? How can the mental processes started in the child by the film be distinguished from those aroused by lantern slides?

Other questions were added, such as, for instance: what special phenomena increase the attention? How does the attention increase, how does it reach the highest point, when does it begin to diminish, how long can it last? What are the relations between memory and the projection of a film? Is the film capable of making a special impression on the memory, and what is the reason of this? Is it advisable that teachers should use the new teaching means for aiding the memory? Is it true that the film has a depressing effect on the will? Are those right who assert that the pupil may become distracted in consequence of the impossibility of looking continuously at moving pictures for the whole of the time necessary? Is it likely that the film may produce a certain impression of superficiality

on children? Is this especially the case if they see films too frequently? Is the moving picture useful only for the visual faculties, while the auditory faculties are not stirred? Is it a fact that, in consequence of the continual movement of the film, the pupil becomes accustomed to look upon lantern slides with a certain contempt, which leads him to look only for the value of movement in the film and to neglect the rest? Are our didactic films likely to develop ethical and social sentiments? What is the correlation between the problems: films and ethics? What difference is there in the effect of the film on the best and worst pupils? Can the film stimulate a feeble intelligence?

To these psychological problems we must add those of a physiological order. What is the effect of a film, while it is passing across the screen, on the visual apparatus of the child? To what degree must the filmed image be luminous if it is to respond to the requirements of health? At what moment during the projection of a film can the beginning of fatigue be noted in children? At what moment may this phenomenon of tiredness be said to have affected half the spectators?

The inquiry had to be divided into several parts:

1) observations made by the pupils during the performance, the object being to verify the degree of attention, tension, interest, tranquillity, agitation, fatigue, pleasure shown; a verification, in substance, of the feelings displayed;

2) questions put after the projection. Each master takes a pupil apart, puts the questions to him and notes his answers;

3) at the same time, the children are asked by a group of students to give their account of what they have been seeing, and their impressions are taken down in shorthand;

4) the following day the pupils write compositions on what they have seen on the film, without help or suggestion from the master;

5) the written compositions must be repeated after two or three weeks' time, to see to what extent the impression has lasted.

This inquiry, which is remarkable for the great variety of the questions proposed, has so far been made in 130 classes in Viennese schools, yielding a total of more than 4000 pupils. It is still proceeding.

The first trial was made with the film already adopted by Langweiser, on the treatment and utilization of timber.

A second experiment was made with the film «*Madame Holle*», which was projected before children of from six to eight years of age, in the different schools of Vienna. This helped the investigators to appreciate the value for children of this age of films based on pure fantasy.

The following results were obtained:

75 % of the children of 8 years were able to follow the story, which was a very attractive one. It was projected at the usual speed of 16 photograms, for 44 minutes; and no signs of tiredness were observed among the children. For the first time it was also possible to judge, *en bloc*, of the comprehension possibilities of a whole class; and it was observed that the best pupils

understood much more readily than the others.

The film «*Foundry*», which shows the treatment and utilization of iron, led us to try another experiment on the effects of the view of a strictly technological film. The results of the experiment were, on the whole, excellent.

Another experiment was tried with the film «*Attention, Australia, Attention, Asia!*», which, although it is apparently of considerable cultural value, did not seem to make any deep or lasting impression on the children. In the first place, the film is too long; it last for an hour and a half, and the children got tired, and after a while were unable to follow the scene any longer, although they were all about thirteen years of age. Secondly, the explanations accompanying the film were looked upon as an extra and useless fatigue. The children were all obviously very tired when they left the hall.

The inquiries undertaken by the teaching body of Vienna have thus far given some remarkable results for pedagogical research and the production of teaching films; and the Austrian Association for the scholastic cinema has therefore decided to continue this system of scientific inquiry.



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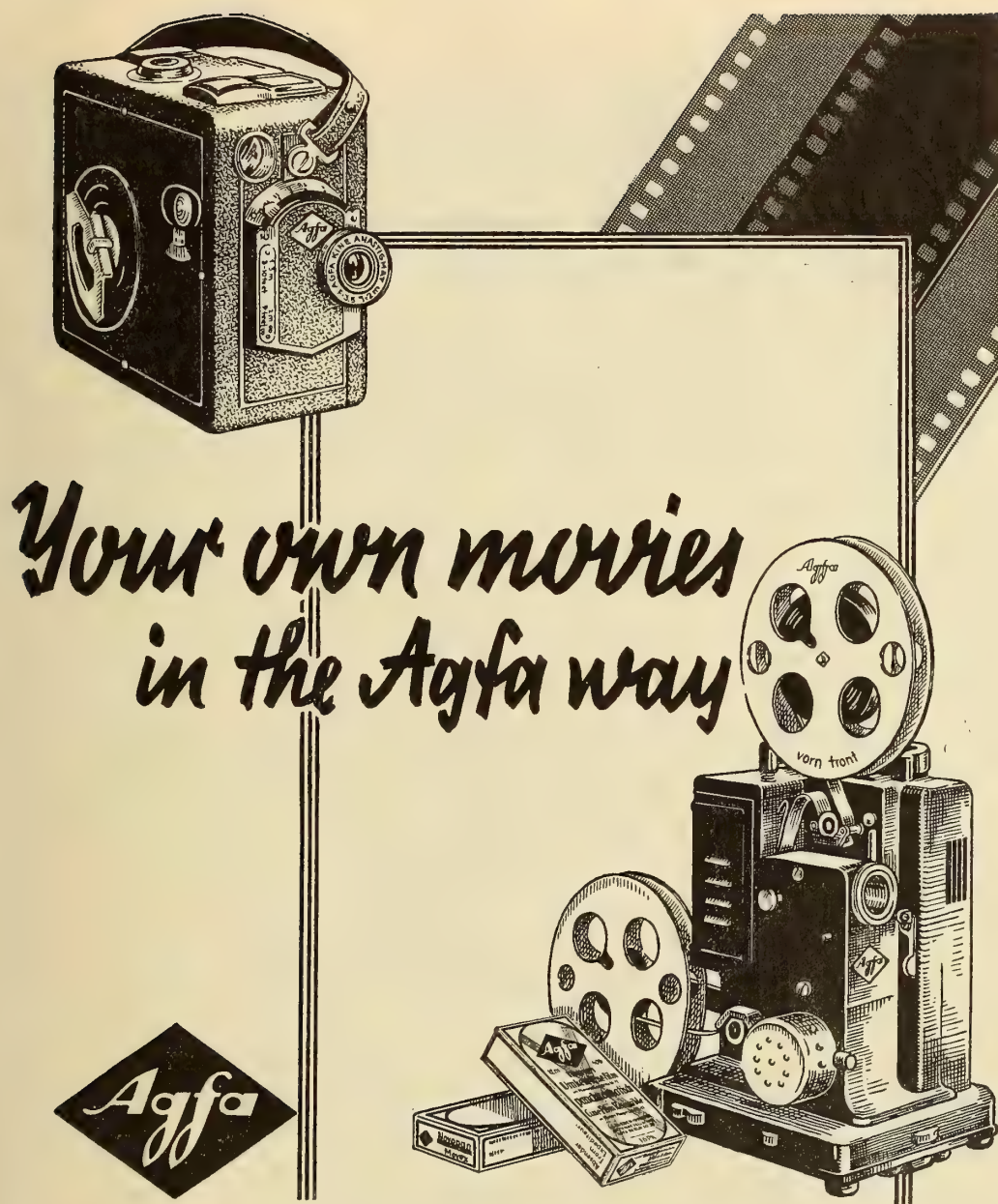
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INTERNATIONAL REVIEW OF EDUCATIONAL CINEMATOGRAPHY

LEAGUE
OF
NATIONS

ROME
OCTOBER
1934



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UTILIZATION OF THE CINEMA IN HIGHER EDUCATION (NATURAL SCIENCE)

BY

Dr. J. Comandon

Premise.

We have already had the honour of presenting two reports on subjects similar to that which we have been requested to deal with for the Rome Congress.

The first was in 1927, on the occasion of the European Conference of the Scholastic Film; the second occasion was in 1931 at the national Congress of the Educational Cinema held in Paris. Our ideas have not been at all modified by the progress in technique and our own later experience. We have had the satisfaction of noting that our ideas are in perfect accord with those of pedagogues who have made the widest use of the motion picture in their teaching, ideas which have been set forth in reports contained in this and other numbers of the Review.

We shall make no apology for borrowing from our own previous efforts in this field.

The Cinema and Natural Science.

The natural sciences, are those among the sciences of observation, which are best taught with the use of the motion picture. There seems to us no need to justify this assertion, which is nowadays generally accepted by everyone. We will therefore take this kind of teaching as a type, and set forth the methods which we think best for illustrating with the aid of the motion picture, at the same time replying to the queries laid before us by the organizers of the Congress.

Methodology of Film Teaching.

Teaching in important schools is carried out by means of courses and lectures which are generally given in large halls or theatres

capable of holding several hundreds of students. In addition, visits to museums and experiments in laboratories are made. Luminous projections have been in use for a long time in courses of lessons and lectures. The theatres and lecture halls are suited to the purpose. The screen is placed behind the teacher. There are convenient electric connections to furnish the light supply for the projector. The room can easily and quickly be darkened during the day by the use of blinds or shutters, and the illumination of the hall is under the professor's immediate control.

The projections will thus be given in the ordinary halls used for lectures and other purposes.

As to fixed projections, the lantern is generally placed in the middle of the hall or room at some little distance from the screen. This is not the policy to follow with the motion picture. The image of the film, having a superficies much smaller than that of a lantern slide ($8,5 \times 10$ cm) will undergo a very considerable enlargement if it has to cover the screen used for slides. A much shorter focal length lens will be required to project the film at the same distance, and it is a well known fact that lenses of this type are liable to distortion.

Moreover, the film operator requires a certain amount of space to handle his machine, wind on and off his reels, etc. Besides, his movements would create a distraction for the spectators, and would annoy the teacher and the pupils if he were in the midst of them.

For these reasons and others, it is always

advisable to install the operator at the back of the theatre or lecture hall, and when it is possible in an isolated cabin to himself. The cabin should be well-aired, roomy as far as possible, well lighted, and fitted with cupboards and shelves for accessories and odds and ends. There should also be extinguishers in case of fire. The cabin should be connected with the hall, or should open on to it by means of a rectangular slit made in the wall of the cabin sufficiently large to allow the rays of light to pass, and to afford the operator an opportunity of observing the screen and the auditorium. (New amphitheatre of the Conservatory of Arts and Crafts). If the theatre has any considerable slope, the projection thrown by a machine placed in the higher part of the floor will give a distorted picture, owing to the oblique fall of the luminous rays. In this case, it is better to place the cabin below the floor, or partly below the floor, so that the opening for the light rays comes between two steps of the central staircase. (This is the case at the Paris Oceanographic Institute).

In order to allow the teacher or professor to communicate with the operator, a telephone or system of bell signalling must be installed. Coloured lights will answer the purpose just as well. Is it advisable to install the projection lantern for slides in the motion picture cabin? This is not always possible, especially when it is desired to project pictures on opaque bodies (epidiascopy). In this case, a wide lens is necessary, which would be very costly if it had also to be of the extreme focal length required to project pictures from the back of a theatre or hall.

For epidiascopic pictures, the lantern should be placed at a distance of a few metres from screen, and two operators will be required, or else arrangements must be made so that one operator can handle two machines at the same time. This is quite easy when worked out along the lines we are accustomed to follow.

Fixed projections should be used, as is customary, in the course of the lessons and the moving pictures should only be shown when the lesson is over.

Utilization of Fixed and Animated Projections.

The method to be followed in showing fixed projections cannot be used for films. Fixed pictures can remain on the screen as long as the teacher wishes. They represent motionless objects. The lecturer has not only all the necessary time to indicate their morphological characteristics, but can also connect his remarks with the ideas forming the theme of the lesson.

On the other hand, phenomena reproduced by means of the cinema, varying continually as they do in time and space, do not permit much digression or comment on the part of the teacher. He must be satisfied with following and drawing attention to what is proceeding on the screen, directing the pupils' attention to those points in the picture which he considers essential or characteristic. The eye only sees well the very limited superficies which it regards, and the teacher should seek to prevent the eyes of the students from wandering at will over the screen. For this reason, a film of an educational type should never show two important phenomena at the same time.

The attention should not have to oscillate between discordant visual and acoustic impressions of life, but should be concentrated on the aspect of the essentials of the film through the appeal of the images and the words. A pupil should never be told to take notes during a projection, nor is it advisable continually to arrest the run of the reel for explanations, for this leads to a deformation of the movements illustrated in the picture.

It is preferable for the teacher to give brief theoretical explanations of the phenomena represented in the film before the

picture is actually thrown on the screen. Some details can be shown with enlargement, slow or accelerated motion, etc. After the projection of the film, the supplementary indications can be given connecting the facts observed with other considerations arising in the course of the lesson. At this point the pupils may, if they like, take notes, which should be made on the margins of illustrative hints distributed before the lesson begins, if this is possible.

In order that the teacher can form a programme of lessons that shall conform to his general curriculum and time-table, each film should only deal with a single limited subject, and films should not exceed 300 metres at the most, while they may well be as short as 100 metres. Short projections are the most efficacious, and should not last more than an hour in all, after which time the danger of fatigue and strain increases greatly.

Requisites of Films. The requisites which films must have have often enough been pointed out, but we shall perhaps do no harm in repeating them here once again.

Supports should be non-inflammable and in a good state of preservation. The quality of the photographs should be such that all details are clearly shown. There is no need to strive after unnecessary elegance, and all tendency to lengthiness should be avoided. Enlargements should allow the essentials enlarged to be seen without any effort.

Slow and accelerated motion should be used in the projection when the ordinary rhythm does not permit of a careful analysis. The projected picture will show the degree of enlargement used, and a chronometer will make it possible to evaluate the modifications which cinematography imposes on speed.

The sub-titles, if any, should be few in number and brief. They must be prepared with great care. They are really signs which

remind the lecturer what the pictures to follow are about to show.

Animated drawings are very convenient for explaining complex movements or for filling in gaps in the films in the representation of phenomena. At the same time, the teacher should be careful not to overdo them, for they do not possess anything like the educational value of actual reproductions of natural phenomena.

Explanations.

Explanatory notes are useful. They can give elucidation as to how the picture was made, and can contain bibliographical indications regarding the works to which the producers of the film have had recourse; also references to the scientific publications which the film may possibly have inspired. The explanatory notes intended for the students can be advantageously compiled with enlargements of pictures taken from the film, accompanied with some letterpress. They should contain space for notes to be added by the student himself after having seen the projection.

These notes, however, must not allow the teacher to forego seeing the film himself beforehand and being in a position to understand it. This is a very important point, and the didactic value of film teaching must to a large extent depend on this pre-view and grasp of the film by the teacher.

Sound and Talking Film.

There are, of course, two methods of using the sound and talking film for teaching natural science. One way is for the picture to reproduce the sounds of nature, cries of animals, etc. which gives us a precious supplement to our documentary silent film. To make the addition of the sound track really worth while, there should be no deformation and the greatest possible purity in reproduction. Our experience has shown us that this is a state of things which does not often exist.

The oral comment when properly registered is, on the other hand, generally extremely pure. In this way, sub-titles and running comment can be substituted by oral comment on the sound track which renders the projection more attractive to the pupils. The oral comment, however, does not offer any advantage for the teacher who is disturbed by it. He is impeded in making his own personal reflections, which are much more valuable than any comment on the sound track, since they fall into line with the general character of the whole lesson.

The talking film used educationally has its advantages, however, if it is shown during a projection for popularizing science or for propaganda purposes by a non-specialist, who need add no further comment to that made by the loud-speaker.

It may be presumed that in the near future *complete lessons* by a well known competent teacher or professor will be able to be registered graphically and orally. This kind of teaching then could be multiplied and distributed (better than by means of a distribution of books) in distant universities and in backward countries not having the teachers or laboratories existing in great intellectual centres. At the same time, it is to be feared that the high cost of films of this type and the limited market available for them will for some time to come prevent their being much in use in the educational world.

The Film as a Means of Scientific Research.

As an instrument of research, the film continues to demonstrate its worth and importance, especially for biological studies. When we are dealing with laboratory work or research carried out in the open air in natural surroundings, the film registration is admirable to supplement other observations. The analysis of the images often reveals documents that are more

faithful and exact for registering and interpreting movement than those obtainable by any other means. By using the slow motion and accelerated film the cinema can *dominate* the element time and render perceptible in a direct fashion the changes and modifications taking place at velocities beyond the range of our visual sense but capable of being reproduced optically, bringing to our vision the infinitely small and the infinitely distant.

These two forms of investigation help to complete the human vision to which natural limits would seem to have been placed since our visual senses are only adapted to the reception and cognition of objects on a certain scale.

The motion picture, better than photography, can show us the invisible, using emulsions the sensitiveness of which is outside the range of the coloured spectrum: red-ray, ultra-violet ray and X-ray cinematography.

During the past century natural science was engaged in studies on morphology, anatomy and the classification of beings. Scientists here have succeeded in introducing a certain amount of order into these departments of science. The latest trend is now towards psychology, towards a study of the *living thing* observed in its natural surroundings, or in some natural surroundings, or in surroundings internationally modified.

In microbiology a similar tendency is to be observed. The improvement in optical instruments and the advancements in new forms of technique, such as cell and tissue cultures *in vitro*, micro-manipulation, etc. allow us to experiment on living cells, while some years ago it was only possible to study microbes and cells after they had been killed, fixed and artificially coloured.

The motion picture shows itself more and more indispensable every day for all research work on life in movement, but, unfortunately, the high cost of installations and film

stock have delayed its wider use. All the same, it is, in our opinion, among films produced for such forms of research that the most interesting documents for higher education are to be found, as well as also for other grades of education and for scientific propaganda. Consequently, one of the best means for overcoming the penury of films of real educational value — a penury admitted on all sides — would be to obtain subsidies for cinema research work. It would also be the safest means for obtaining the effective collaboration of the university world on which the future of cinema teaching largely depends.

Format.

We believe that for teaching films in general it is best to make negatives of 35 mm size. The expense incurred in purchasing raw film is only a small part of the total cost of the finished negative, and it is generally admitted that the normal 35 mm size negative gives a better picture than sub-standard film. The subsequent printing can be made in different formats.

Projection.

The large theatres and lecture halls ought to possess apparatus more or less of the same size as ordinary public cinema halls. The installation should be permanent, fixed in a proper cabin, and show 35 mm pictures.

Lecture halls with fewer than 100 seats can use portable machines of sub-standard size (17.5 or 16 mm). A notable economy in the price of the film and the installation costs will be effected in this way. We should like to remark once again on the desirability of standardizing one of these reduced size formats for teaching purposes, as has been done with the normal 35 mm film. The popularization of the educational film in France is seriously hindered by the competition between the various formats.

Projectors.

Unfortunately, projectors used in teaching are only too often of imperfect make. Some are just like toys. They wear out rapidly, and their running soon becomes difficult and reveals defects, so much so that sometimes teachers prefer not to use them. Bad motion picture projectors have been the cause of the discredit into which the admirable method of film teaching has fallen in the opinion of numerous pedagogues. The best pictures will please neither pupils nor professors if projected with poor projectors. They will only run up the expenses. Any economy in the price of a projector meant to be used in teaching is illogical, for it will only be at the expense of the quality of the apparatus. Projectors ought to have long lives, and require as little repair as possible. They require very careful looking after.

In the case of sound and talking films, we must have perfect reproduction of speech, or it is better to not attempt it at all. Sound films which are run off at a speed of 24 photos a second as compared with 16 photos a second for silent films give a more exact representation of movement, which is of importance in natural science, when it comes to studying, for instance, the motions and steps of man and the animals. This rate will certainly one day be made universal in order to simplify the technique of «sonorizing» films of a silent origin, and despite the extra expense due to the greater length of film, we think that this will be a valuable improvement.

The inhabitants of large cities who frequent cinema halls have acquired, without knowing it, an experience of the eye and mind which helps them to understand modern cinematography. The film producers are not ignorant of this fact, and they produce *successful pictures* which the non-initiated in film technique cannot easily appreciate.

The student will have to be trained to

read didactic projections, and be taught how to interpret them. The slow motion and accelerated projections baffle common sense at first, but after the student becomes accustomed to these forms of technique, he grows interested in them, and derives great profit from studying them. The teacher too must make himself film-conscious and gain a knowledge of film technique from the time he enters a normal school.

Nothing prepares him better along these lines than some actual experience in film-making himself. He gets to know his instrument and its possibilities in this way.

By practice and use, he will become acquainted with the way to present a film which is quite different from the way one should show a fixed projection. He will find easily enough the comments suited for his teaching through the animated image, and he will be able later on to perceive through examinations and questions the progress his pupils have made.

In conclusion we would place the following hopes of ours on record:

a) that films suitable for the curricula of higher educational establishments teaching natural sciences be produced in large numbers;

b) that each film treat of a single well-defined subject in a short picture;

c) that efficacious aid be given to biological research through a use of the motion picture, so that we may get films with a real scientific interest;

d) that teachers of biological sciences be provided with motion picture apparatus in their theatres and lecture halls, and that such apparatus be of the best quality;

e) that educationists make themselves well acquainted with the technique of using the film for didactic ends. They should be brought into contact with producers of films, and kept up to date regarding pictures dealing with their different branches of teaching.

CINEMATOGRAPHIC TEACHING OF MEDICINE AND SURGERY

BY

Prof. Roger Leroux

SECRETARY GENERAL OF THE FRENCH COMMITTEE OF STUDIES

A complete report on the teaching of medicine and surgery by the use of the cinema such as we have been charged with preparing means a long and patient work which must be based on a synthesis of specialized reports. We shall have therefore to make our apologies in advance for any faults or oversights.

We have thought it well to limit ourselves to the definite questions which were dealt with in lecture rooms likely to end by being used in the agenda of the Congress, but despite this self-imposed limitation, we have felt constrained to examine the various problems from a general point of view, putting on record as a conclusion our hope that all the efforts made will be coordinated and not remain ineffective through lack of proper cooperation.

Methods. The cinematographic material existing in medical faculties and clinics has little importance from the point of view of quantity. It consists chiefly of isolated apparatus and accessories installed in lecture rooms likely to end by being used for all kinds of purposes. There is only a very small number of halls properly fitted out for motion picture projections on medical lines. Such installations are more often than not only for use with silent films, and their regular use is rather the exception than the rule.

The way of using films intended for completing medico-surgical instruction is extremely varied according to the particular

subjects which it is desired to teach. For example, the projection of a picture of the type of « The technique of an operation for Appendicitis » must be given in successive visions, while the presentation of physiological experiments can only be done in a fragmentary manner in connection with the programme laid down for the students.

Is it necessary to utilize the cinematographic projection during the lesson, or is it better to use it as a sort of repetition and summing up of facts after a lecture? This again is a question which has to be settled according to individual and particular circumstances, but, on general lines, the system of using the projection inserted in the teacher's oral explanations is the best. The consequent alternation of visual images and words allows us also to arrest the projection at any desired point, thus reducing any loss of time to a minimum.

The quite special character of the various subject-matters which can be taught in schools of medicine means that some subjects and themes will have everything to gain from visual illustration, while others will derive little or no advantage. The motion picture then should be used so that it does not interfere unnecessarily with other means of demonstration and explanation, and should not be used in any arbitrary manner.

The silent film requires sub-titles and running comment, which must be fairly well developed. Some subjects can very well

prove quite useless in film treatment if they are not properly illustrated with running comment. This is an observation that is even truer of micro-cinematographic subjects than of merely microscopic material. The production of animated pictures carried out with cultures *in vitro* shows quite clearly, that, without the addition of suitable sub-titles, it is impossible for the most intelligent spectator to form an exact conception of what he sees on the screen. Only the doctor who took part in the preparation of the picture would perhaps be in a position to identify the various phases of the film, which only proves still more evidently the necessity for clear and definite sub-titles or explanatory comment in pictures of this kind.

The question of running comment or sub-titles forming part of the picture is quite independent of the explanatory notes which are essential for completing a proper understanding of the film. These explanatory notes for use by those handling films of this type should follow the ordinary lines of teaching programmes. They should be able to be used to illustrate a lecture on the subject of the picture, and even for an exhaustive and detailed kind of lecture, touching sections of the filmed subject. They should also be suitable for oral exposition of the projection.

The sound film offers us, in this field, all the advantages of the silent film. The titles and explanations will be given in the sound track, and closely synchronized with the visual images. Whether we are using silent or sound film, in view of the complicated character of medical and surgical films, it is always advisable during the projection to lay stress on the parts of the picture which are of especial importance.

In a surgical picture, for instance, if the demonstrator points out with his finger or some surgical instrument the essential anatomical area or difficulty of the operation,

he will render comprehension of the entire picture much easier and more profitable. Indications of this kind are absolutely necessary in films of a scientific nature, especially in micro-cinematographic projections. Filmed cells, for instance, look so much alike that a simple verbal explanation is not sufficient to differentiate and illustrate them to the spectator.

In any event, it may be regarded as certain that however careful and detailed the precision obtained in a silent or sound scientific film is, the projection of it alone will never suffice for teaching purposes. Since it is quite impossible to substitute the teacher with a machine, even if such machine reproduces the gestures and words of other teachers, any film of whatsoever kind will only be properly efficacious if it is commented on by the local teacher whose psychical influence must prepare the minds of the spectators and listeners, since it is the teacher who knows his students' reactions and the way to show and illustrate pictures for them to the best advantage. This proves the uselessness of distributing among the spectators explanatory notes or pamphlets, as is done in some teaching establishments and public cinema halls. The lesson which uses the motion picture as an aid and supplement of the oral lesson must not be confused with the projection of any ordinary cinema drama or romance.

There is a paradoxical point of view which is inclined to state that the voice worries the public in talking films, and that silent pictures are preferable. The answer to this is that the kind of distraction arising from the withdrawal of the spectator's attention from the visual aspect of the film to the talk exists also in the case of a lecture. One does not, on this account, expect a lecturer to repeat half a dozen times what he said in order to compensate for possible distractions and moments of disattention on the part of his audience. Some parts of a lecture or de-

monstration may very well be repeated, but it is just during the making of a picture that the intelligent producer can contrive to avoid the drawback referred to which is generally quite independent of the greater or less possibilities and advantages of the silent or talking film.

Fixed and Animated Projections.

The utilization of these two different kinds of projection does not mean any harmful opposition or competition between them.

The advantages of the still or lantern slide as used up to now are well known (slides in black and white, or in colours or epidiascopic slides for demonstration purposes). There is no reason to want to substitute them entirely with moving pictures. Each of these means has its special qualities and technical advantages. Both are useful for helping the lecturer or the teacher in their tasks, and there is no question of having to make a definite choice between them. We must recognize, however, that there is a distinct leaning of opinion towards the still or slide in view of the lack of uniformity of cinema registration in the various institutes and university clinics.

There are certain sections of medical teaching, including especially instruction in radiography, which do not lend themselves very well to cinematographic illustration. On the other hand, stereoscopic projections can usefully be of the moving variety.

Apart from questions of scientific and technical superiority or suitability as between fixed and animated projections, the financial side of the question undoubtedly weighs all in favour of the still picture.

The substitution of the motion picture for the slide would, on the other hand, be very useful in those cases and experiments which have to be frequently repeated with lantern slides in order to be properly under-

stood. There are, for instance, it is well known, certain experiments the cost of which is very elevated, or for which, as in the case of vivisection experiments, the film could for both humanitarian and economic reasons take the place of slides or actual first hand experiments in laboratories.

Films and slides ought therefore to fit into one another and be mutually complementary. When a subject can equally well be illustrated and demonstrated by either slides or films, the former should generally be preferred owing to the possibility which they allow of defining the subject through methodical analysis, progressively illustrated, leaving to the motion picture the making of a synthetic summary only to be used when the lecturer has the impression that he has not made his ideas sufficiently clear. Fixed projections form the linear limits of the road it is necessary to traverse.

The film represents the road that runs between given limits of borders.

Some pedagogues support a theory which is totally opposed to the one we have just indicated. They think the whole of the subject should be shown with the assistance of the film, while the details ought to be studied later in a pre-established order from beginning to end, with the help of fixed projections; special time and attention being given to those points which require it. Our own experience with students, has however, led us to opposite conclusions, and we are inclined to favour the theory we outlined in the first place.

Can we use the film as a substitute for the fixed projection with the help of a system which allows to arrest the running of the reel, and to fix any single photograph for a space that may be as long or short as we wish? Theoretically, we can of course, but the practical difficulties are considerable, in fact, multitudinous, since to project a single photogram in a film we must run off all

the pictures preceding it. The images of a film are arranged in a sequence that cannot be changed once the picture is mounted, and can therefore only be used in that special order. This obligation imposed on the teacher interferes with his liberty of action which is very necessary and precious in teaching. With the slide, on the other hand, the teacher can alter the succession of his pictures at will according to the necessities that may arise in the course of a lesson or lessons. Moreover, if special care is not taken of any single photogram at the moment of registration, it is likely to come out in a vague thin form, when it is only one of a rapid succession of numerous images.

All this would seem to show that the film cannot substitute the lantern slide or still picture. All methods and means ought to have a life and liberty of their own without super-imposition which only lead to one result: an imperfect use of either or both.

Effects of Cinema Teaching.

The question of utilizing or not the cinema in teaching medicine and surgery can have no influence on the development of the official teaching programmes in use in the various schools. These programmes are always, or any rate usually, composed with a criterion of a certain elasticity, and variations are admissible in practice according to the teacher's tendencies, the number of the students, and the apparatus at the disposal of the school.

In any event, the teaching material should be brought up to full requirements or regularly installed, both as regards projection rooms, projectors and necessary outfit.

Projection Rooms. — These must obviously fulfil all police requirements and regulations. As a matter of fact, practically none of the universities used for projections are in order with the police regulations. The

development in the use of the motion picture in teaching medicine must consequently imply the building of new halls or the adaptation of the already existing ones so as to meet police requirements. The question becomes complicated when we want to use sound and talking films for the following reasons.

(1) We have to obtain proper acoustic conditions which means bringing in specialized technicians, if we do not want to run the risk of having to reconstruct our halls or have defective ones.

(2) We must insist on the use of a projection cabin to isolate the apparatus from the hall, so as to avoid all sounds and noises damaging to a perfect audition.

Projection Apparatus. — Projectors are still too little used, and their cost is generally beyond the financial possibilities of the majority of schools and even university clinics. This difficulty could be overcome by subventions and grants from various government bodies and institutions.

Locations and Studios for making Pictures. — The studios for making pictures in our university clinics are few in number, and the exception rather than the rule. Three rooms are required: a hall for the operations, a laboratory and a studio intended for making pictures of cases of various illnesses. Each of these halls or rooms will not require much modification to make it suitable for our purpose.

Subject Matter suitable for Cinema Use.

The cinema can be used in all departments of medicine, as also in surgery and biological science.

Surgery. — The production of a surgical picture is by no means an easy task for anyone wanting to follow this method of instruction. But when once the picture is made, it permits the most exact and definite demonstration before a numerous gathering

of spectators of all the details of an operation which usually pass unobserved by those who witness it.

It has been often said, and not without reason, that during an operation it is only the surgeon who is in a position to note all its successive phases; his assistants who might be expected to do this being generally unable to. All the more difficult is it then for the other spectators who are less favourably placed with regard to the operating table to follow the exact phases of the operation. A surgeon who interrupts, even for a second, the rhythm of his work to explain things to his pupils is losing very precious time, and may risk the patient's safety.

This is a fact which should be duly stressed because it implies a special responsibility on the part of the director of the film. Once the picture is made, however, the view of the operation becomes a matter of universal knowledge.

There are certain typical phenomena of surgical practice which form exceptions that only chance is likely to throw in the way of the surgeon who has lessons to give to pupils. The filming of such phenomena, if made under good conditions, can be used for demonstration purpose at such time and on such occasions as the professor may choose, even if it does not fit in with the ordinary didactic time-table.

Without insisting on other reasons which militate in favour of the film in teaching surgery, we can recall the remarks made by Dr. Doyen on the subject as far back as 1899.

«The first time I saw one of my own operations screened for me, I had to confess that I myself was ignorant of the actions I went through. A number of technical details which I had up to then thought sufficient no longer appeared to me in this light. I felt obliged to reconsider, improve and simplify my methods, and I fully recognize the value of the motion picture in perfecting my work ».

We should remember in this connection the great future value of a collection of a series of operations carried out by our famous surgeons and operators, a comparative study of which would do marvels for generally improving the standard of surgical technique.

Medicine. — The film has an important place in the teaching of medicine. Certain technical processes such as *bronchoscopy*, *pneumothorax* treatment of consumption and others can admirably be illustrated by the motion picture, and prove of the greatest advantage to the medical students.

Other branches of medicine, such as neurology open up a wide field of activity for the cinema. It is indeed, thanks to the motion picture, that we have been able to determine certain pathological phenomena such as forms of *tabes* which have almost disappeared from our hospitals, thanks to the anti-syphilis campaigns.

The close connection existing between medicine and social propaganda and the struggle against the great social evil is a problem which goes beyond the scope of the present paper, but it has a distinct importance for the motion picture which, as Dr. Viborel has pointed out, has a fine opportunity here, and has already proved its value.

Biological Science. — The cinema represents in the infinite branches of biology a supplementary way of strengthening verbal explanation. Our remarks on surgery and medicine may be taken to apply to biology in general, but in this section, perhaps more than elsewhere, the animated drawing reveals itself as very suitable and useful when used in conjunction with lantern slides or stills.

The films which have been produced up to now are too few to allow us to appreciate them from the teaching point of view. This fact is also supported by the circumstance

that so far no rational programme or curriculum for cine-biological instruction has yet been thought out, still less put into practice.

There are films in this category, but generally speaking, they cannot be used, save by the person who produced or directed their production which was often enough for reasons of a strictly personal nature. We cannot therefore at the present moment say exactly what can be done by the motion picture in this department. The opinions of the experts are so far contradictory and lack scientific control and basis.

An official inquiry ought, in our opinion, to be made among teachers and in all the various branches of medicine on the following lines:

— does the cinema seem useful to you for teaching your branch of medicine?

— how would you propose to utilize it?

— what subjects should prove most interesting for cinema study in your opinion?

The results of an inquiry or symposium on these lines would certainly allow us to prepare the way for the drafting of a programme the expenses of effectuating which with a similar rationalized system of work would be reduced to the minimum. Duplications or triplications of the same subject or theme would be in this way be avoided.

The Cinema as an Instrument for Scientific Research.

Insistence has long been laid on the value of the motion picture for scientific researches,

and it would appear that there is a general agreement of opinion on this point today. The registration of normal movements, the registration and subsequent acceleration of extremely slow natural movements and the inverse phenomenon with extremely rapid motions (slow motion projection) are everywhere appreciated at their proper worth. Motions and movements which

were completely unknown have been discovered by the accelerated and slow motion camera which has been able to reveal to us rhythms inperceptible to our ordinary senses of investigation.

Without going into details regarding the various kinds of apparatus existing, we may point out one detail which goes to show the interest aroused by these practical applications of cinematography. There are machines specially adapted for use in different kinds of laboratories. There is, as a matter of fact, little connection between makers of cinema apparatus and experts in research work, and the plant in use is as often as not the result of some more or less successful adaptation made by the research men acting as amateur cinema technicians.

Characteristics of Apparatus used for Teaching.

The apparatuses must in the ordinary way have special characteristics when used for teaching purpose, but there is also the question of the capacity and worth of the operator who must be a conscientious person. To have a proper cooperation between man and machine, the former must thoroughly understand the latter, and the film director must know the work of the operator who projects, if the best result are to be obtained.

In addition to perfect mechanical working, good luminosity of the optical system and satisfactory light supply, the projector should be solidly made, easily handled and quickly regulated.

The psychological conditions which govern the teaching of medicine in special schools, though somewhat different from those obtaining in superior education classes, have nevertheless several points in common, also regulations which are applicable in either case. The attention of medical as well as of ordinary university students is likely to be affected by any laborious handling or

operating of the projector. If the working becomes too clumsy or laborious, it will render the effect of the lesson nugatory. The effects of a bad technical handling of a projector go even beyond the limits of the particular lesson and class-room, and prejudice the students unfavourably against such film instruction. It pays to have apparatus that is easily manipulated.

It is a commonplace that a man can only teach well that which he knows well himself. The teacher ought therefore to be completely master of his apparatus, both for handling it himself if needs be, should the operator fail, and for adapting the projection to his lesson and deciding how much film should be shown in a given instance for a certain period of oral lesson.

Technical knowledge of this will be very useful to him in projecting and supervising the projection of films. It will be all the more valuable when he comes to direct the making of a picture for teaching purposes.

We should note the value for scientific research that lies in the possibility of holding a given photograph on the screen for a length of time and in the use of the accelerated and slow motion projection.

The Cinema is really efficacious in Teaching.

We cannot in this report go into the question of the degree of comprehension or visual or brain strain undergone by the spectators, without entering the domain of psychology. We must confine ourselves to the results we have had occasion to observe when using the film. In spite of the few regularly controlled observations it has been possible to make, it is clear that the film arouses the students' attention, facilitates explanation and the grasp of details which are not easily explained orally. It also comes to the rescue of lecturers who are incapable of making sketches or designs on the blackboard, and allows considerable time to be gained in certain

subjects where not enough licence is allowed by the official time-table.

Collaboration in the Production of Didactic Films.

Dr. Imhof of Basle has put it on record that... «scholastic manuals are not written by the publisher, but by a pedagogue... why should it be different in the case of the didactic film?».

We are in full agreement, and it is clear that between author publisher and even printer of an educational text-book or manual there is a closer collaboration than would at first sight appear possible. It should not be the printer's task alone to choose the kind of type to be used, the size and style of the capitals, and the general lay-out. The author ought to have a say in this matter, seeking a certain harmony and correspondence between the typographical dress of the work and its content. He should also pay due attention to the publisher's suggestions.

All these points are equally true in the case of the didactic film. The close and intimate collaboration of the two experts is indispensable: the work of the pedagogue or scientist and the work of the film technician. This collaboration must not consist of separate efforts by the two experts, but rather of a communion of forces directed towards a reciprocal study of the subject and theme by the film director and of the movie technique by the author of the picture. In making a surgical picture, it goes without saying that the actual «shooting» of the film must not in any way disturb the work of the surgeon who is operating on a living subject, and it is therefore necessary that the film producer learn the essential phases and times of the operation just as the surgeon must accustom himself to the process of the making of a film. Professor GOSSET has argued in favour of this idea. He is of opinion that the person who makes a film of a surgical operation ought to have a thorough know-

ledge of the operation he is registering, while the surgeon should have at least a fair acquaintance with the technique and method of making a surgical picture. This is an inevitable necessity if surgeon and cinemaman are not mutually to disturb and distract one another. Such disturbance might well be harmful both for the subject of the operation and the success of the picture. This amounts really to a kind of reciprocal apprenticeship for surgeon and « cineast », and will certainly require more than a day or two to complete, for a well made and precise surgical film may take one or two months to finish.

This also applies to the medical film as distinguished from the surgical picture, and holds good equally for biological and scientific films.

Some people have thought to resolve the difficulties inherent in the question by making the teacher the film director, but this leads to another difficulty that concerns the format to be used. Such a solution in any case will not be suitable for surgical films, and it is thus much better to have two mutually interested experts engaged in the production of pictures of this kind.

The medical-surgical teaching films must be strictly scientific. It is meant to improve the technique of surgeons, and to teach students how operations and medical practices are carried out. It has no place in a programme where films of social propaganda or pictures for the popularization of science are included.

There remains one more point; the question of the ideal programme for teaching in institutes of superior learning that contain subjects suitable for film teaching, in addition to other forms of instruction.

It seems to us necessary — and we conclude this report by expressing our hope that an official inquiry or symposium among teachers in medical faculties, surgeons, hospital doctors and directors of clinics and laboratories for scientific research be started as soon as possible. This symposium ought to set forth the necessities and requirements of all the different clinics, schools, hospitals, etc. in the matter of didactic films. Points to be considered should include: subjects to be treated cinematographically, length of films, present technical conditions of projection obtaining in the various teaching institutes and also possibly a list of the films already made.

The results of this inquiry, which should have a strictly official character, would give us a good idea of the views of the educationist and the body of teachers regarding the use of medical films. We should bear in mind that our first work on propaganda lines ought to be directed to learning the views of the present and possible future users of films of this type. It is useless to produce films without having a proper market for them. An efficacious form of propaganda for films of this kind could be made by a series of demonstration projections of the type given by Professor Gosset in the Sorbonne in December 1933.

The symposium would also allow us to get an idea of the quantity of films required for teaching, the meterage of same, the number of copies it would be desirable to print, and a notion of the total cost which would permit the drawing up of a regular financial programme. When we come to ask government bodies for subsidies, our first act must be to prepare a clear and definite scheme of the work to be carried out.

THE CINEMA AND THE TEACHING OF THE ARTS

BY

Prof. Henry Focillon

OF THE PARIS SORBONNE

Is there not an incompatibility between the plastic arts and the tendency towards movement? Does it not seem that the essential quality of a masterpiece is due to its eternal immobility, since it appears before us as a fixed and definite result that has overcome time and our interior anguish? Does not moving it mean destroying it? Architecture is based on the earth, its mass condemns it to a stability which never changes. If it ceases to be fixed, if it tends to move, is it still architecture? The great images of man which sculptors have raised on the horizon of our humanity are especially characterized by the fact that they do not move or change. BAUDELAIRE conceived beauty in this form, and raised the statue to a compact, radiant thing.

If the masterpiece does not move, we do, however, and we feel the necessity of movement in order to grasp the statue's immobility. Our sight must take it in from all angles and in all its dimensions. We must step around it, and it is through this process alone, this walking round an object that we can possess it in a space not as a flat thing covered with designs but as a mass and a volume. When we do not have the work itself, but an image of it, cannot it be imagined that the latter, through a clever artifice, will move at our pleasure before us who remain motionless?

If we discard the use of the motion picture, we condemn ourselves to consider works of art merely as a collection of fig-

ures. Other pressing reasons invite us to reflect on the matter.

(1) A short while before his death — which deprived French art of a generous and elect spirit — RUHLMANN spoke to us about a film which he had prepared for his own amusement with an amateur's camera in the course of a trip in Southern Italy. He told us his delight in having learnt how to see and re-examine with the aid of that wonderful optical memory, the lens, the masterpieces of ancient and modern architecture in classic lands.

A work of art is not an abstract thing, but forms part of a natural centre, and belongs to the light which colours it. A monument is only a large drawing surrounded on every side by human life which takes up diverse associations with it. The temples of Agrigentum and Selinunte preserve their intellectual beauty in an architectural picture in a well made photograph, but one rich and substantial quality is missing in them. Their life in the photograph is sad and arid compared to their existence in nature and natural surroundings, where we walk under a changing sky, past shadows that tremble over a ground steeped in reflections.

In order better to «understand» the cathedrals of old France, placed on their rustic acropoli on the heights of our old cities, we must retrace the old paths that lead up to them, pass through the narrow ways that cross the mountainside. This kind

of thing does not imply any falsity nor the addition of any theatrical setting to the work of art; it means rather giving a work of art its due space in which it can live; it means associating it with history and modern life.

The approach is made by a mazy path where the marks impressed by the passing centuries can be seen. The object of art is discovered bit by bit. We see it under various aspects. It is no longer a concrete crystallization preserved for us under the glass of a museum show-case. It is something alive that lives with us.

The young folk will be especially sensitive to this progressive and multiform revelation of a thing of beauty. In this manner, it would be possible to make short «type» films for scholars, films which, while eliminating the merely anecdotal element, would preserve the living essence.

2) The motion picture is more precious still for research work. Photography has done an immense service to our research specialists, but it has exposed us to some dangers. In the three-dimensional arts, architecture and sculpture, we tend to believe that volume is only the super-imposition and concatenation of a number of profiles. We have endeavoured to show that profiles can be innumerable, but even if we could fix and project many of them with stills, we should not obtain the fundamental mass feeling of the interdependence of the parts and the manner in which they accord with one another and make their equilibrium.

I am convinced that the cinema is capable of showing us — through the powerful effect of moving light which is more revealing than our own sight — certain processes and effects of relief, clash, quick movement and roughness.

Animated drawings can prove extremely useful in ornamental studies. The life of forms does not always proceed by way of

sudden mutations, and still less through sudden creations *ex nihil*. BALTRUISAITIS has shown in his celebrated work on *The Stylistic Ornamentation of Roman Sculpture* that a strict and rigorous dialectic is capable of producing incalculable variations of the same motive which change under our eyes almost without our perceiving them. The rules laid down by the author already constitute elements of the film. A few intermediate inflections can make the innumerable metamorphoses of the Roman capital live again for us.

This is not a secondary or special aspect of our inquiry. All the arts that are based on abstract formulae — like those of the Orient — will derive great benefit from such a technique.

Finally, we should analyse the work of the artist's hands. Art is not a purely spiritual phenomenon, but is shaped out of raw material owing to certain concerted actions of our members. It is a triumph of man's hands.

Admirable films have been made on the playing of the pianist. Could not an experiment of this kind be made on the hands of a painter or a sculptor? The pianist's technique has certainly something quite definite about it, and is exercised on notes or keys which are always in the same position, while the painter or the sculptor move their keyboard about so that the variety of their attack is apparently quite free. This is only one more reason for registering their endeavours and struggles with material.

We are not much inclined to believe that works of art are created with the direct cooperation of the Holy Spirit, and that once the inspiration is there the work of art reveals itself. We want to see the hands at work.

(3) Films of this kind will be useful for the historians of art. They will likewise have their uses in schools where painting

and sculpture is taught. But on general lines, the motion picture as a process which analyses movement and represents movement ought and must have its place in schools of Fine Arts.

The work of art is a thing among the movements of life, but we ought to know all these movements or at least a great many of them. It is not an admirable thing that the study of form is subject to a kind of century-old convention which treats the living model like clay? The lines which life makes with the bodies of men are extremely marvellous as are those which life reveals to us in the bodies of the animals.

I have always thought it a pity that the Fine Art schools have remained so exclusively «human», and that since the times of the Renaissance little attention has been

given to other phases of life. The Renaissance in any case, was more liberal and freer than the Middle Ages of which it was perhaps only a later arrested phase (all these words are merely tentative). The Renaissance was interested in plants, animals, etc.

We all know how the spectacle of life can arouse in the young man who is studying form an appreciation of its movements not as a mere passing lesson, but as a source of unknown, unstudied phases of equilibrium.

The slow motion projection of a horse in movement or a swimmer brings out solemn and wonderful arabesques of motion. In this way, the mobility of appearances may attain the immobility of works of art which should be a fixed and definite sign, full of what has been long prepared and studied.

THE CINEMA AT THE SERVICE OF MUSEUMS AND ART MONUMENTS

(REPORT FROM THE INTERNATIONAL MUSEUMS' BUREAU)

It may seem illogical to have recourse to a technical means that is particularly used for registering movement to present or analyse material and objects which express thought and sentiment in a necessarily static phase. The still or lantern slide will always be the best and most rational method of studying works of art and monuments.

Having made this important admission, we can now see in what measure and in what special cases motion picture technique can be usefully employed for the study of still objects of art.

We have heard references made to the useful services which the cinema can render in teaching art and archaeology. We will therefore confine our attention in the present note to the application of the film for museums and historical monuments.

It will suffice for our purpose, as a form of simple illustration to point out the particular department where the use of the motion picture may seem advisable. We must, first of all distinguish between: (a) films intended for the big public to induce it to visit the museums and historical monuments; (b) films meant especially for students and experts; (c) films of a strictly technical character intended for museum staffs.

As far as propaganda films for the public go, one might very well use as pictures of current events the inauguration of new museums, new halls and temporary art exhibitions, new archaeological discoveries, restorations of historic monuments, etc. The object of propaganda of this kind should be the arousing of the public's curiosity and interest in the activity of museums and all that it stands for.

In line with this form of propaganda, brought forward and advanced by other methods, pictures could very well be made that would place a given work of art in its natural surroundings whether historic or artistic. Films of this type would form a useful kind of comment of an attractive nature that would assist the public to understand and appreciate works of art and monuments, at the same time providing a historical and geographical background.

Besides works of art as such, there is a whole mass of objects which are shown in museums, the interest of which does not lie so much in their special aspect and appearance as in the reason for which they were created. By this we refer particularly to ethnographical collections. The film could show pictures of such objects in their ordinary use and illustrate how they were made.

A second class of pictures useful particularly for students and specialists would be rather a development of the before mentioned kind of films. Objects of art and historical monuments could be filmed as the constructive features of a given epoch, school or architectonic or archaeological period.

The technique of the motion picture permits us to include widely varying periods and styles in a succession of images which it would be difficult to produce with a series of super-imposed photographs.

On the other hand, for scenes and views of a certain extent, width and architectonic complexity, the film has distinct advantages over direct vision, and allows the spectator the chance of examining altogether and briefly all the various aspects and characteristics of the historical or artistic problem under immediate consideration.

The technical side of the creation of a work of art or an ethnographical object has an important function in allowing us to appreciate such things. We might very well produce a whole series of films capable of showing the various epochs that have passed between the conception and realization of a work of art. Placed at the disposal of the curators of the official museums, films of this kind could help to round out the ordinary teaching which is based on a simple view of such objects.

There remains for us to consider the assistance which cinematography can give to the technical side of museum work and the preservation of historical monuments.

There is no doubt that this type of film should be addressed to the staff of museums and curators of historical monuments in general. These films will have a teaching and documentary character, and will show for staffs and experts the results of recent experiments and technique. We must draw a distinction here as regards pictures intended for showing the current technique of preserving and maintaining museum objects and historical monuments and psychological phenomena arising from a study of the same, such as the reactions of the public before certain works of art.

It will be possible and all to the advantage of future museum curators to lay down a regular system of film teaching capable of registering certain ordinary operations such as the packing of works of art, the cleaning of halls in a museum, re-painting and re-hanging of pictures and mural decorations, how to deal with metal *objets d'art*, how to handle objects sent in for exhibition to a loan or temporary exhibition. The use of the slow motion camera would prove of great assistance in illustrating some of these delicate operations which require long experience and careful manipulation. Oral instruction cannot easily deal

with the question. In matters of restoration and preservation of objects of art, and also for archaeological research work when modern instruments are used, the film type of illustration for students is very useful. The great problem of how to protect our museums and historical monuments against fire is an apt subject for film illustration and instruction. We can be shown in this way the various systems used for preventing and combating fire in museums and art galleries. Alarms and methods of circumscribing fires can be explained in this way.

Defective systems and the proper way of fighting fire and preventing it can be well shown on the screen.

The cases briefly referred to are capable of great development. The film's functions in illustrating various forms of illumination can easily be imagined. This refers to both day and night illumination, to show off the works of art to the best advantage.

In addition to these material applications of the motion picture, we have mentioned the utility of using the film for registering and analysing the public's reactions in regard to works of art. The information which museum curators have in their possession will form a useful guide in researches along these lines, and will help us to learn how to attract the public to museums.

Summing up, it is easy to see that in spite of the criticisms which have been made regarding the value of animated projections in the field of museum objects and historical monuments, there is no doubt that within proper limits the motion picture is capable of being a valuable aid to museum curators.

The International Museums' Bureau has been working on these lines, and has developed a scheme for placing the cinema's resources at the service of scientific museography and the preservation of historical monuments.

THE FILM FOR TEACHING ART

BY

Mario Meneghini

Panorama.

In the *Osservatore Romano* of January 21st 1931, I examined, in an article entitled «Educational Cinema and Art» the possibilities of a closer and more efficacious understanding between the artist painter, sculptor, architect, etc. and the motion picture. I pointed out that such an understanding could well offer new opportunities to artists, and at the same time prove advantageous to the industries connected with the arts.

In Italy, unfortunately, genuine artists are kept away from industrial production establishments, out of a sense of precaution, it would seem. Any competitions that there have been have not affected the reality of the position as stated above. Cinema reviews have not up to now thought it advisable to offer hospitality to this new form of competition, which might very well bring forth new artists of vigorous and original talent, who could take their place beside the recognized artists of repute already doing work for modern furnishing and decorating firms and arts and crafts houses.

I have referred to the foregoing facts in order to show that the question of associating art with the cinema in a close, practical and homogeneous form has for some time been the idea of those who, like myself, add the study of the motion picture to the study of history and art.

It was indeed through the study of the

art of the great masters of the past that I became convinced of the absurdity of neglecting the educational possibilities of the motion picture. As a modest student of history and art, I propose to examine the question of art-teaching not from the strictly pedagogic point of view, but rather from the aesthetic angle, for aesthetics offers us a wider and more fruitful ground, of real cultural value and import, on which to base our technical demonstrations in the department of art.

The Art Film and its Public.

Art teaching can be given in two different sets of conditions: in the schools as an obligatory subject, and in the academies and Fine Arts institutes as a voluntary subject, that is, as the result of an artistic inclination on the part of the student anxious to make spiritual and technical progress.

If, in *gymnasiums*, (a grade in Continental schools) *lycées*, institutes, etc., the «history of art» courses are somewhat superficial and synthetic, tending to give the student a varnish of general all round culture, the same cannot fairly be said of our academies and Fine Arts Institutes where there are special courses which treat the various subjects in a thorough and careful manner, preparing the young people to face the struggles of the artistic life with a solid preparation.

Thus if in the first case many of the

students — little inclined temperamentally to the study of art — give but a half willing attention to the teacher's words, in the other case, however, the position is different entirely. Here the spiritual level of the students is higher, and there is a genuine ardent desire to learn. In this latter case, the didactic aid of the film will be more efficacious and more obvious.

Teaching Films. I am inclined to argue from these facts that the teaching film, when art is an obligatory subject, may be useful to the pupils as a superficial illustrative element of instruction and be given in the form of documentaries, historical films, etc., covering in this way vast and complicated historical-artistic periods.

On the other hand, where the temper of the students is finer, and their desire for knowledge keener, the films projected must be of perfect quality, produced by specialists with the collaboration of professional teachers. There are very few documentaries in circulation today made with broad concepts of their meaning and purpose and capable of throwing full light on a place or period. I remember « Assisi » and the « Imperial Forums » issued by the Cines Co. and the silent short made by Father Dufays « Notre Afrique du Nord ». These pictures can be included in an instructional programme since they are made with a certain nobility of intent as well as with a profound knowledge of the subject treated.

It is therefore risky to include — in a list of pictures suitable for teaching purposes historical — films made with commercial intent and with historical bases that often become the subject of much argument.

The speculative element in commercial productions is always a little alien to absolutely historical and artistic faithfulness and correctness. If it does not exactly follow

the often unhealthy or sentimental taste of public, the industry takes care, at any rate, not to offend this taste, and in the most favourable circumstances will probably invent some details or development of the central facts of the story dictated entirely by a more or less scrupulous fancy.

The disadvantages deriving from this relative respect for historic and artistic verity are from the teacher's point of view of capital importance.

The observation recently made by a critic regarding the personality of a Roman emperor — Nero — who was interpreted for the cinema in an inexact and even grotesque fashion, gave rise to a discussion which suggests the advisability of putting some restraint on certain producers. The figures of sovereigns or artists who have left a deep mark on their time by their acts of heroism or intelligence, or form the nucleus of malevolent legend are certainly very attractive to the makers of films. This should not prevent them from exercising a little caution in choosing their film directors and scenario writers, nor it should it urge them always to seize on those incidents in the lives of their heroes which are most extravagant, just for the purpose of winning the applause of the gallery.

Indulgence in this kind of thing renders the instructive value of the historical part of such film doubtful, and offends the taste of the cinema's more cultured patrons.

In my modest opinion it is frankly absurd to hope to be able to use for didactic purposes the results of these hybrid compromises between art and commerce.

The historical-artistic teaching film, to be used profitably and for ethical-educational ends, must be produced with special care by persons having special qualities chosen from experts and with a complete exclusion of choreographic and spectacular tendencies.

A strictly conceived instructional curriculum implies the use of serious and exact didactic means.

Control and Limitation of Production.

After having said this, I am of the opinion that the didactic possibilities of the art film will be best revealed during the development of a fixed programme. If the real benefits deriving from film teaching do not easily appear as the result of an examination, art teaching of several subjects by means of the motion picture will have its sure place in the not distant future.

In several subjects I say, and by this I want to make certain reservations regarding the use of the motion picture and put a bridle on excessive enthusiasm for this form of instruction.

I do not intend to make a dissertation on art and artists. I shall only express the sensation which I myself, as a follower of the plastic arts in my youth, can still feel in my memory.

To make my meaning clearer, I should like to say that when I speak of *art*, I mean the transfusion of one's own personality into artistic conception, the materialization of the lyrical element which animates creation, the effort to excel oneself spontaneously.

Therefore, to consider teaching drawing with film projections as some people have suggested makes me wonder if these counselors are simply excellent educationists or also real artists.

A drawing often reveals to us — in its nervous fragmentary outlines — the artist's inner character. We can sometimes see in a drawing a vision suddenly captured in this way. Again, a page of drawings can sometimes show us the trouble and torment which the artist has suffered before being satisfied with the hang of some drapery,

the position of a person or some piece of decoration. A book of drawings is like a volume of confessions. They are more interesting the more intimate and real they are.

A good painter or sculptor must have a knowledge of drawing, but we must avoid exaggeration and not reduce this study, which is always difficult, to a mere mechanization. If this were all that was required, it would be sufficient to provide young men and women with a simple «pantograph» to save them all difficulties. I often admire the lack of correctness in Tintoretto and Tiepolo which came from their exuberance of fancy and superabundant genius, and take pleasure in admiring in these instances the mark of genius and true art.

I would even go further and say that if in the teaching of drawing — the *a b c* of all artistic instructions — we were able to make the artist's first steps easier, we should be doing harm to his spirit, and damaging, and perhaps rendering sterile, his innate personal faculties. These personal qualities, in order to attain their maximum development, must be steeped in meditation and strengthened with exercise and effort, trained to meet the difficulties that lie along the path of art.

To make easy the path of an artist is far from being the same kind of thing as effecting mechanical improvements in projectors or in increasing the selectivity of a wireless apparatus.

It is, therefore, not with the assistance of the screen as if it were a geometrical theorem that one should guide the steps of the young in reproducing a model, but with the aid of the living model itself or himself as is the best current practice today.

The same thing applies in the case of painting. None of the modern three-colour processes nor the coloured film have been

able to reproduce exactly the canvases of Franz Hals, the limpidity of a sky by Guardi, or the delicate veiled effect of a painting by Titian. I do not believe there is any use in having recourse to the motion picture to teach the technique of mixing colours or to illustrate the various kinds of paint and varnishes and the effect of time on them.

I prefer to take my examples from the past, because there are few artists to take as models and types at the present. Just as modern artists have risen to giddy Olympian heights with amazing rapidity, so will the merciful veil of oblivion fall over their efforts with equal rapidity, hiding them from the non-compassionate gaze of future generations.

Authentic Possibilities. As I have remarked before, films of an historical character (including ethnographical and paleontological, etc.), can be of valuable assistance in studies of this kind, provided they are studied produced and projected according to strictly educational notions and by persons of unquestioned competence.

A scene of Roman life, for example, if made with scrupulous exactitude and correctness can illuminate the scholar's mind in the most effective manner on all the life of an epoch, and will be useful for various departments of study (from religious rites to arms of war, from commerce to architecture, etc.), and can be helpful also to academies and Fine Arts institutes.

For some of my demonstrations and studies made of late years, I sought for and discovered, covered with a thick layer of dust, the model of Imperial Rome made by Professor Marcelliani.

Over the gate is the sacred warning *Roma communis ars omnium nationum*. Every-

body is in agreement about this, but notwithstanding it, the work which Professor Marcelliani laboriously and patiently put together and presented to the city of Rome is falling into pieces, and before long nothing but a memory will remain of it. This does not strike me as generous behaviour, and I am sure that if a film had been made of a work of the carriers-on of the tradition of topographical studies of the city of Rome (not forgetting among them the drawings and plans of Lanciani, Falke, etc.), we should have rendered a well deserved homage to the professor and done something worth while for classical studies.

It is generally admitted now — and it is logical enough — that the motion picture is extremely useful in teaching architecture. If we could illustrate our text-books with a complete picture of Rome with its temples, classical buildings, etc., we should be well on the way to suggest new and important reconstructions, and might be able to prepare a collection of cine-didactic material that would serve as a basis for future programmes of study and curricula.

The Italian Ministry of National Education made the interesting and enterprising experiment of making a partial reconstruction of a section of the Marcellus Amphitheatre, of the Roman Forum, a section of the Temple of the Vestal Virgins, and the entire façade of Diocletian's Curia Romana. In a little while a complete reconstruction of a portion of the Colosseum will be undertaken.

These various enterprises have won the general approval of the experts and classical scholars. They will doubtless prove of inestimable advantage to persons living in Rome or able to allow themselves the luxury of an extended visit there, but it is only with the aid of the motion picture that this wealth of new material will be offered to the

distant schools and academies of the world.

Moreover, a model constructed properly does not run to an excessive cost, and with the technical means now available can easily be filmed altogether and in detail so as to look like the thing itself.

The same may be said of all those buildings of the most remote civilizations spread throughout the world which Catholic missionaries have described and often reconstructed for us with able designs.

History, architecture, uses, costumes, religious rites, etc., may all be used in art teaching for one or another department of study, and even film-producing firms of modest financial resources can very well make some pictures on these lines when helped by the scholastic authorities.

One place where, in my opinion, the film can be of undoubted benefit is in dealing with the technical questions inherent in art and in the technique of certain artistic industries or applied arts.

With regard to technical problems, I will confine my remarks to the work of restoring paintings, which, though it may seem at first glance a very easy matter, can in effect prove the ruin of a work of art if improperly carried out. For the operation of «lining» there are many systems in use, but not all are suitable to all schools of art. For example, the English system is harmful for paintings of the Venetian school. A most useful series of films could be prepared to give a theoretical-practical demonstration of the various systems.

In the matter of cleaning old paintings, the processes used vary according to the age of the picture, its school and epoch, the quality of the colours, the nature and extent of the changes in the varnishes used and the so called *patina*.

There is the well known case of the harm suffered by the famous *Last Supper* of Da

Vinci which was due more to badly executed restorations than to chemical and atmospheric action on the fresco. This proves that it not enough to have a knowledge of a single method to form an exact diagnosis of a case. It is clear that to teach methods of restoration of paintings, etc., if we cannot have the masters or their work before us, the best thing we can do is to make films which will prove of use to us.

I have often seen students and others carrying the really worth while manual by Count G. Secco Suardo, but theory is not enough, and for a work of real preparation practice is necessary. Today with the X-rays and the quartz lamp, we can obtain splendid photographs, and see paintings liberated from all their restorations, which — especially eighteenth century restorations — have massacred a good proportion of the pictures of all the art galleries of the world. The use of these systems is not easy, but when combined with the film, the results can soon be made popular and widespread.

There is another very delicate operation, namely removing frescoes from walls or ceilings. To attain perfect ability in this work much experience and a special aptitude are required. There are at the present time most capable professors specialized in this work, and I think it is a pity to lose the benefit of the experience of these experts which — unless we film some examples of it — will perish with its possessors.

The same thing may be said of the magnificent if costly Roman mural painting known as «encaustic», the secret of which was won from the centuries by our Venturini Papari.

If I well remember, at the beginning of this century there was in Rome a school for working in hard stones. Today scarcely anyone remembers its existence. If motion pictures had been taken of its classes and

operations, we should be in a position today to train fresh artisans and craftsmen, and give back life to an art which was a purely Italian glory.

Recently, in a lecture I gave on the circumstances connected with the forthcoming reorganization and development of the Rome Artistic-Industrial Museum, I pointed out the scarce consideration given in Italy to museums of this kind. I sought to demonstrate the many advantages which come from the existence of such museums, and referred to the esteem in which such institutions are held abroad. The small industrial art museum which is given hospitality in the Sforza Castle in Milan, though admirably housed, needs a wider development and scope if it is really to be of effective use to the higher schools of applied arts that are connected with it.

I have mentioned this in order to show how in decorative art and arts and crafts the film can go a long way towards ensuring success.

I will now refer to some of the best known minor arts which are quickly understood and can be best illustrated by means of the film in art schools. They are: lace work, art fabrics, tapestries, mosaics, enamels, glass work, majolica and coloured glass.

It will be seen from the foregoing list that the motion picture may be very usefully employed in teaching various arts and crafts connected with sacred art. Since the flame of faith is necessary for a proper manifestation of sacred art, I would propose to circumscribe the use of the art teaching film to the technical-illustrative part alone.

With regard to discussions concerning the advisability of producing both sound and silent pictures, it is my opinion — since we are dealing with serious works of art — that it is wise to remove from the

very beginning any possibility of being grotesque by making unsuccessful « dubbed » versions.

In documentary films dubbed sound tracks can be used without risking any grave inconvenience because the words are uttered by persons who are not seen and who will have agreeable voices. The same thing is not true of films of a technical character.

The speaker may be a man well on in years or with an accent not suitable for microphone reproduction. For the explanation of pictures of this kind, it is better, I think, to supply a comment for the film which allows the teacher or professor to follow with correct synchronization the development of the picture as it is unrolled on the screen.

I do not know the film, « The Teacher's Art » which, I understand, is limited to illustrating *acqueforti*. We should not forget, however, that prints are produced from copperplates, wood-cuts, monotypes, mezzotints, dry points and colour plates. Which all goes to show the utility of a small series of teaching films.

In such films, the documentation ought not to be limited to the processes of today or those of antiquity, but should deal with every epoch, place and style. To avoid banality, such works should illustrate all the details with a refined artistic sense and precision capable of rendering them continually interesting. It is not necessary to add that it would be a serious mistake to produce long films. The educationist ought to be allowed to enrich his lessons and render them easy with a projection, whence there must be an abundance of short films.

I do not mean to say by this that fixed projections should not be used for the explanation of particulars. The still is and always will be of the greatest utility.

Moreover, since there is a tendency today

to eliminate the distinctions between pure and applied art, I will quote the words reproduced by Vasari in the life of Spinello Aretino which are to be found under a painting of the author: «Simone Cini made the intaglio work, Gabriele Saracini filled in the Gold, and Spinello di Luca d'Arezzo painted it in the year 1385». A return to a frank comradeship in art would be agreeable to-day and would permit the possibilities of exquisite artistic collaboration.

Before concluding this brief report of mine, I should like to refer to another Italian glory which only today begins to make an occasional timid reappearance. I mean the art of printing.

If the inventor of printing was Gutenberg of Mayence, and the art reached Italy through the work of two Rhineland priests, Conrad Sweinheim and Arnold Pannartz, the craft took on added glory and sobriety and elegance of proportions through the work of Emiliano Orfini, Luca Pacioli, Aldo Manuzio, Soncino da Fano and Giambattista Bodoni. These early Italian printers were able to compose their book with such a typographical poise and art that they won the admiration of the entire world. (In architecture, this sense of balance or poise is the perfect mingling of the mass in relief on the flat plane).

Our exhibition of the printers' art held in Paris last January under the auspices of the printer Leon Pichon, at which were exhibited the first three volumes of the

the printer Leon Pichon, and at which collection «Masters of Humane Letters printed by Artists Printers» make me hope in a real and definite renaissance of this art which I would like to see flourish again in the pages of reviews and even in daily papers. The foreman printer ought not to be ignorant of the proper balance between matter and space on a printed page, that is between text and illustrations. This knowledge should permit him to arrive at that «musicality» — to quote Foçillon — which makes the play of black and white harmonious. This artistic sensibility would certainly be developed in the workman printer if, in addition to the mechanical teaching of his craft, he were given — in the proper place and with the use of special films — some idea of the classical examples of printing among the nations of the world.

In his opening address at the Photographic Congress held in Rome in April 1911, His Excellency Corrado Ricci — then director of Antiquities and Fine Arts — after having stated that the two strongest passions of our time are for speed and light, spoke of the photograph as «the daughter of the sun», capable of providing criticism with «marvellous means of study and comparison».

After only 23 years, «the daughter of the sun» has grown to great stature, and has given birth in turn to another star, whose luminous surface lights up the furthest off lands and the limits of whose power are as yet undefined.

THE CINEMA AND STUDIES IN ARCHAEOLOGY AND THE HISTORY OF ART

(REPORT OF THE INTERNATIONAL INSTITUTE OF INTERNATIONAL COOPERATION)

IN the department of archaeological studies and the study of the history of art, the practically limitless resources of motion picture technique provide us with an admirable means for popularizing knowledge and the latest progress of science in the various countries of the world. In this section of science, it may be said that to know is to understand, to become acquainted means the breaking down of nationalistic barriers which often interpose their political fences between exponents of various branches of culture.

It will be sufficient to quote a few cases to show the immense possibilities for the application of the motion picture in this field of study and the splendid services it can render both nationally and internationally.

In the department of university archaeological teaching, for example, it would seem a profitable idea to establish a more direct contact between professors and students in the various university courses and the definite work being carried on by explorers and heads of archaeological missions, etc. What better means for forming this contact than the motion picture?

It is not generally possible for both material and financial reasons to arrange for the attendance of professors and students at certain highly important excavations taking place in various parts of the world — as for instance at Herculaneum and Pompei, or in the Rome of the Emperors, or in the Valley of the Kings in Egypt, or in the Aegean isles. It is, however, perfectly practical for every archaeological expedition to be accom-

panied by a well fitted out cinema service which could reproduce a series of pictures of the various operations of the excavations, illustrating the strata formations, and the latest methods of work which vary according to the territory that is being explored and the kind of material it is expected to find.

Another department where the resources of the cinema could well bring a valuable contribution of important knowledge is that of the technique used in the execution of ancient works of art. It would be a good and valuable idea to furnish university students and perhaps also the directors of some of the less important museums with a series of motion pictures giving a notion of the various processes through which a work of art must pass from the rough sketch to the perfect finished work, whether this be in marble, or bronze, or other metal. In the same way it would be advantageous to learn the physical and chemical properties and qualities characterizing such works, the instruments used in their creation, and the history of such instruments. As far as is possible, these motion picture methods could render useful service, from the educational angle, if applied to other arts like painting, ceramics, glyptics, numismatics, etc. The slow motion projection could also be very well used to illustrate and explain clearly, and with the least waste of time, the creation of those works of art and those aspects of their execution which are not generally understood with ease. The film comment would prove better than any amount of

verbal explanation or photographs or slides.

The fundamental importance which a knowledge of art technique has for studies of archaeology and history is a commonplace. These branches of science, neglected in the past, continue to gain in importance, and will go on doing so gradually, the more such studies abandon empiricism and the academical spirit and tend towards the strict formulae of science and research.

In all epochs, national and regional schools and single artists have used certain art formulae, certain expedients and processes, even certain instruments and tools and even certain instruments and tools and certain types of material which form a whole indicating or marking this or that artist. It sometimes happens that — thanks to this valuable coefficient and index and our accumulated technical knowledge — we can determine the authorship and date of a work of art which might well be impossible without such knowledge and with ordinary empirical means. There are certain special sections of art teaching which seem particularly suited to motion picture illustration. The scientific and aesthetic study of classical sculpture requires an examination of the various parts of the works both in their connection with one another and their value as statuary. Sometimes university and fine arts school teachers can enjoy the advantage of illustrating their lessons or lectures with the original work or, if not that, then perhaps with a good copy. Failing this, the only means left to the teacher will be photographs, or some form of mechanical reproduction, or lantern slides. The use of the film in a series of pictures illustrating the various views and angles of the piece of sculpture so that all its stylistic qualities are perfectly revealed would, however, be much more profitable and advantageous both for professor and teachers.

It we are not making a mistake, there is

yet another field of art and archaeology which could be usefully explored with the resources of the modern motion picture. I mean those researches which are specially intended to elucidate and fix the characteristics and signs that distinguish a real and genuine work of art from a forgery or fake. This kind of knowledge is not a matter to which museum directors and managements and the occupants of university chairs can afford to be indifferent. The «faking» of works of art has from time immemorial been an illicit phase of the activity of unscrupulous art dealers, but never as today has this trade or craft reached such a point of perfection, while the danger resulting from this commerce in false antiques and faked works of art is becoming a serious menace both to private individuals and public institutions engaged in collecting the masterpieces of the past. The idea of establishing in the most important museums and art galleries of the world a special bureau or repository for false works of art acquired by the curators for one reason or another has been before public opinion for some time now. The idea behind the suggestion is to allow museum and art gallery curators and directors and students generally to learn from the unfortunate experience of others and gain a knowledge of how to tell the genuine work of art from the false. The motion picture might very well be used in this connection to help the investigations of the experts.

Many of the observations and possibilities of a useful employment of the film which as we have suggested might well be made in the departments of archaeological studies have equal application to later art and the art and the art of our own time. With regard to the strict art teaching given to the students of academies and fine art schools, it is obvious that there are countless ways in which the motion picture can successfully be employed. The careful report prepared on

this matter by E. Katz and published in the January number of this Review provides interesting documentary evidence of this.

The Cinema and Folk Lore Art.

In the department of art, the phase of popular art or folk lore has for some time now attracted the attention and interest of the motion picture producer. The general growing interest in folk lore phenomena, especially those instances of it which are rare and seem to be passing away has contributed to this end. What has especially attracted the public interest in these manifestations has been their original character and individual charm, their picturesque qualities which are different from anything else. We can now often see in public cinema halls projections of folk-lore customs, habits, religious processions, games, dances accompanied by popular music.

There can be no doubt about the value of these shows from the instructional point of view and the knowledge of foreign countries. There is still a great deal to be done along these lines, however, and the technique of the modern cinema gives us every ground for believing that vast improvements and progress will still be made with projections of this character — all to the benefit of culture, propaganda of folk-lore arts and the fraternization of the peoples.

If we look more closely into the activity of the cinema industry and technique in the field of popular arts and folk lore manifestations, it would appear fairly obvious that apart from a few special and meritorious exceptions, the work done by the producers along these lines has aimed chiefly at registering the gay and picturesque aspect of popular customs so as to amuse the public rather than provide any sources of culture and instructional propaganda for it.

Films made up to now in the department of popular art and folk lore have been

of the most varied quality from the documentary and art excellence point of view. There have been some admirable pictures made along these lines, but there have also been many which have been put together without any proper documentary study or background with the result that they are quite unsuitable for the instructional and cultural propaganda to which we have referred. There would seem to be a lack of any proper plan of serious research and study for utilizing on serious lines the motion picture and its precious resources for the purposes mentioned. The industry cannot very well be blamed for this lack of preparation and study, for its objects do not lie in the same direction as the reproducing of spectacles, customs, dances and folk lore events such as we have referred to.

The assistance and practical cooperation of the public authorities, whether from universities or art academies will always prove of the greatest utility and value. Frequent meetings and understandings between representatives of the film industry and the authorities are also most desirable with the object of securing those cultural advantages which should really be watched over and procured by the state rather than by the trade inasmuch as they have a public utility character.

If this principle is true and has numerous applications, it can certainly be applied with advantage in the field of the popular arts and folk lore. In our opinion, the intervention of the public authorities in the department of artistic production is especially urgent and desirable. The government authorities are in a position to prepare and arrange for the carrying out of rationalized schemes for controlling the cinema industry in this particular section.

Popular art production is every day on the decrease, both as regards quality and

quantity. Influences of first rate importance of a cultural, social and economic character, the vast development of machinery and rationalized industry, the general levelling of the classes, the ease of relations between various sections of society, the increased frequency of contact between cities and the country all tend strongly to reduce the field of production and sale of popular handicrafts and folk lore output.

Attempts at preserving and defending this popular art have been numerous and still continue. Very sick people always collect a lot of doctors around their bedside. It is beside the question to examine here whether or not these efforts are likely to be crowned with success.

Another point is what should be done about preserving the popular art left us by the past, or that part of it which is still living and vigorous. What are the means best suited to attain this end? Up till recently all that was attempted on these lines was confined to museums of folk lore, art, oral and written propaganda, to lectures and books, or folk lore spectacles and ceremonies, dances, processions, music, etc.

Today the marvellous resources of motion picture technique furnish us with a new ally capable of exercising a powerful influence on the public. Unless we are very much mistaken, the cinema's action could easily surpass that of the museum or indeed any other of the propaganda means we have referred to. If the museum represents the fixed, static and necessarily limited presentation of the popular art of the past and its surviving elements, the cinematographic vision of such art is a living representation which can carry pictures of that art everywhere to city and village and even into furthest off and loneliest parts. The exceptional efficacy of film propaganda is self-evident, for it is a multiform and varied propaganda that interestes both

the cultured and popular sections of the public. It is a form of propaganda that is ideally suitable for favouring the mutual understanding between men of different countries and the formation of currents of reciprocal sympathy through the medium of one of the finest vehicles of expression for artistic talent.

If it is possible to aim at such important results today, thanks to the resources of cinema technique, we are faced with the problem of determining those special spheres of popular art that best lend themselves to this kind of treatment.

In other words, it seems to us indispensable that a careful work of selection and rationalized endeavour based on proper rules and criteria be allowed to operate in the whole field of popular art. Choice must be made of those subjects, actions and figures which merit cinematographic treatment for propaganda purposes. Up to now, this kind of control has been somewhat lacking. Work has been carried on in a more or less empirical fashion, under the pressure of circumstances with an eye chiefly on filming of shows that would seem likely to appeal directly to the big public instead of specializing in those sectors to which we have referred. If we want to utilize cinema technique properly in this department, and obtain all the advantages it can offer, it is time we proceeded to a shrewd and careful organization of the programmes to be carried out and the methods to be followed.

The matter is urgent, for it is a commonplace that the popular arts are disappearing before our eyes and threatening to vanish entirely. The valuable propaganda work which the motion picture can carry on in their favour ought to be started at once, and without further delay, that is, while it is still possible to exert a stimulating and beneficial action, while, in short our subject

is still alive. There is no need for us to go into details regarding the preparation of a plan of action. Studies and special researches will be required for this purpose and the collaboration — in our opinion — of the most intelligent and liberal-minded persons at the head of the film industry.

We can, however, give some examples of how plans of this kind should be prepared.

Up to now, the film has reproduced the gayer aspects of popular life and its more spectacular sides: dances, music, processions, religious rites. The other side of popular life has been much less often shown by the film, that is, the people at work, producing and creating things artistic and non-artistic, as well as the instruments and surroundings connected with this production. It generally seems useful for students of past civilizations and for the public generally to dig deep into memories, traditions and historical sources both written and in the form of drawings and painting to find a basis for comparison with the folk lore and popular arts of other peoples. Artists of every age, mediaeval designers, miniature workers and sculptors, painters and intaglio workers of the Renaissance have left innumerable documents representing the man of the people, the artisan, the peasant at his work with all the tools and instruments of his trade or art and everything necessary for carrying it out. This is a psychological, aesthetic and historical phenomenon that is fixed and constant: the innate passion of the people in all times to see itself reproduced in the multiform aspects of its life. The same need operates widely in exterior, artistic manifestations of various kinds. Our modern civilization has in the motion picture a wonderful means for satisfying this need in a complete fashion. It is not advisable in our opinion to film this or that episode of pop-

ular life whether joyous and playful or serious and belonging to the sphere of work. The cinema ought rather to make an integral documentation of the whole life and activity of the man of the people, and specially the artisan, in all its forms and with the various results of such activity.

It is our opinion that — with the assistance and collaboration of competent persons and institutions associated with representatives of the motion picture industry — a sort of census of popular activity should be made, especially in so far as it concerns popular art.

The result of such a census or inquiry would show which forms of popular life and art were in the opinion of the experts the best suited and the most deserving of being handed down to posterity by means of the cinema. Among such forms of popular art, we may mention: the carving of sacred and other images in wood, mosaic works; glass-blowing, lace, embroidery, coral-working, popular musical instruments, hand-made fabrics of various kinds, beaten iron and other metals, rustic hand-made furniture, and house decorations, etc.

A series of films ought to be dedicated to each of these sections of peasant art, reproducing all their various aspects, their technique, materials, surroundings, uses, with examples of the finished article and an explanation of their purpose and utility.

In those cases — and they are fairly numerous — in which these arts are practised at home, the cinematograph documentation could give us a rapid synthesis of a day in the life of one of these peasant workers or peasant families, their home surroundings, dress, house furnishings, decorations, and show us how they run their homes, and handle their domestic utensils and other objects.

A collection of pictures of this kind

should form a regional picture, if possible, concentrating eventually in a national picture of the peasant and folk lore life of any given country.

To cycles or series of pictures like the foregoing dealing with the laborious side of the existence of these peasants, should be added other series contemplating and representing them in their gayer moods, their pleasure time, and hours of relaxation. Such films would treat of folk lore processions, dances, religious and traditional rites which give these folk an opportunity of showing off their costumes, dresses, etc.

It is clear that in order to determine the extent and character of films of this type and the things which should be included in them, that authoritative persons or bodies ought to make a regular preliminary study of the region it is proposed to illustrate. Then rational schemes for making the picture could be formed, such as would offer guarantees of work being seriously and adequately completed, with due technical knowledge.

There should be still a third category of folk lore films to go with the two just described, and this should deal with popular music that could be recorded on discs or cylinders. The objects of the film repository which would result from the activity

suggested would be of notable importance. They would insure for the future a proper documentary preservation of all the outstanding facts, objects and phenomena concerning contemporary popular artistic activity linked up with popular life and close to it as possible.

These film repositories would correspond and have similar functions to museums of folk lore art, but would be limited in the material treated of folk lore art. but would be limited in the material treated to living artistic production, except in the case of music which has an indefinite life. The existence of such repository or repositories would make it possible to give cinema projections all over any country for cultural and instructional ends as well as for propaganda in favour of peasant and popular art. Finally such archives of pictures would, in virtue of the possibility of international exchanges that might very well be organized between peoples of different lands, spread a knowledge of popular art that would cross frontiers, bringing to far off nations a perfect vision of branches of popular art in other parts of the world and spreading artistic notions and concepts likely to bring about good and friendly international relations, stimulating sympathy between peoples, and laying the seed of future fraternization.

THE CINEMA AND THE TEACHING OF LITERATURE

BY

G. Thévenot

PROFESSOR AT THE MONTAIGNE LYCÉE

To suggest the use of the cinema in the teaching of literature may seem rather remarkable advice to some people. The universities have begun to make use of the motion picture in scientific teaching, especially for geography and natural history. Its use in literature, however, does not at once become generally obvious.

If it is true, and no one denies it that the teaching of literature has a triple purpose, that is to give the pupils a literary education through a study of the chief national and foreign masterpieces, to form through them the pupils' normal personality and to teach them all the shades of their tongue, it is also clear that the essential study in class comes down to a minute and careful study of the text-books. It is necessary to repeat this: the matter on which teachers and pupils have to work is the text-book. If the film can render the lesson livelier and more attractive than any kind of description in the study of natural history or geography, the same does not seem to be true of the teaching of literature.

In order to understand the services which the motion picture can render in this department, we must look at the inherent difficulties of the case. Some of these difficulties depend on the pupils and others on the discrepancy between the time at the teacher's disposal and the requirements of the curriculum.

It is a commonplace with all teachers of literature that unfortunately pupils are generally incapable of extracting the logical content of a literary text.

They do not, except in rare cases, succeed in feeling and realizing the human experience and interest value of a literary work. A work reduced to algebraical proportions is naturally stripped of all its originality and freshness. This applies, especially for secondary teaching, to the literary classes VI to I, with the exception of the Upper Class I which includes a group of picked literature students.

The other difficulty comes from the short time available for literature classes in the continually augmenting curricula.

A student who aims at taking the degree of Bachelor of Letters must know the whole history of French literature from the Middle Ages to our own time, and must possess a good knowledge of the outstanding works of the whole period.

Since it is not possible seriously to start this literary study before the Third Class, the time at disposal for attaining this complex collection of knowledge and information is limited to a bare three years. The teacher therefore finds himself in the position of being hesitant whether to do a little of everything to meet the demands of the examinations, or to study certain essential works thoroughly. In this latter case, he will be following the instructions of the ministry. The first method is more compromise than culture, while the second is dangerous in practice. It is truly a pity that a student should not know, in addition to the masterpieces of his country's literature something also of the general evolution it has passed through during the centuries.

Though the motion picture cannot solve

all these difficulties, it can render important service towards eliminating some of them.

Modern criticism admits that a literary work cannot be understood if a proper grasp of the conditions in which it was created is not obtained.

Any great work contains human truths which are true in all times and epochs. It is this especial quality which makes it great and allows it to survive amid the ruins of empires and civilizations, becoming a witness of dead generations.

The author's genius is that of a man whose experiences are unlike those of anybody else. The work of art, however, comes to being in a special atmosphere. All such works, including theatrical works, present different aspects in different epochs. If then we want to find the original life in a work we must possess an elaborate and varied documentation. Those persons who possess this background of knowledge utilize it almost unconsciously, forgetting the years it took them to acquire it.

The young persons, our students at the beginning of their lives have no such store of accumulated knowledge and notions. The teacher's problem is to supply something to fill this want, and to furnish them with as rich as possible a background of ideas and facts in as quick a period of time as is possible. One must remember the vastness of their curricula and choose the outstanding subjects.

We can now begin to get an idea of how the motion picture may be a precious instrument in this connection.

Let us take one or two examples. We have had occasion to explain to students of the VIth (French) Class (children about 11 years of age) a short Latin text, some verses of Ovid describing a chariot being broken during a race in the arena. One section of the class found no little difficulty in describing the chaos of broken wood and wheels and rearing horses, while others among the pupils had perfectly grasped the details of the text. In this particular case, the difference in grasping the text did not de-

pend on the degree of knowledge of the different students with the Latin language, but on quite an extraneous factor. When one examined the matter, it turned out that the better appreciation of the details of the text depended on some of the pupils having recently seen the film *Ben Hur*, in the course of which there is of course the famous chariot race scene.

Films like these and others of the kind (such as *The Sign of the Cross*) which reconstruct scenes of the persecutions of the Christians under Nero can render great service to teachers.

Reconstructions of this kind would be more useful for history courses than for literature courses.

We know perfectly well that the various differences and alterations in the *mise-en-scène* costumes and manner of acting must be understood for a proper appreciation of the evolution of the classic drama to the romantic plays of our own time. A film might make this quite clear by showing a scene here and there carefully chosen from the repertory of various periods.

The motion picture too could very well show the inner details of a writer's life, thereby illustrating the connection between his life and his work.

Chateaubriand laid great stress in his writings on the powerful influence exercised on his temperament by his own part of the country, Brittany. It is no easy matter to make this comprehensive to a pupil from a calm Southern city, or a busy melancholy city of the North. It is easy to image the usefulness of a film illustrating views of the castle of Cournbourg and surroundings: the wild rocks lashed by the tempests, the melancholy countryside that René liked to stroll in. As a matter of fact, this method has already been employed by one of the most distinguished of our literary historians. M. TRABARD, dean of the Faculty of Letters at the University of Dijon and professor of literature, in the course of a lecture given in 1933 on MERIMÉE's *Colombe and the Trip to Corsica* used a

commented film projection which, in view of the theme, was an admirable idea.

There would be no difficulty in finding countless other cases. Whenever we have to secure precise knowledge of a place, an epoch or a man, the film can give us the valuable assistance of a rich and lively documentation.

It can do more; it can help us to study a great work in its entirety. In the ordinary way, owing to the shortness of time, a work of this kind can generally only be studied in certain parts, that is the essential parts. Whence derives the difficulty that each scene and each page is closely connected with the total effect, and the task of the pupil is to learn the entire thing and not a part of it.

What are we to do in order to give him knowledge and learning? The best way is to let the pupil read the work, but even here difficulties arise, for, if left to himself, the child understands badly, reads too fast, or copies from the summary of the work which he finds in the text-book.

The oral summary made in class by the teacher requires much time, and is not very useful.

This is where the motion picture can lend us its aid in the form of a film based on the novel or play which is being studied.

The projection can be given in two sections. The first should be a sort of preliminary show to awaken the imagination. The scenes and parts studied in class would be shown. Then, following a scholastic examination with exercises and questions, a second projection would synthesize the observations and studies, and round off the film lesson in an artistic fashion. This all opens up the way for a vast amount of work to be done in teaching literature with the help of the motion picture.

Considering the matter especially from the point of view of plays, etc. the question becomes even more interesting. It is a commonplace that to judge a scene without having seen it acted does not help good criticism. In every work, there are scenic effects and char-

acteristic gestures which no explanation can properly illustrate. For instance, make a pupil read the scene in which M. Jourdain receives a fencing or dancing lesson.

The pupil will not be amused. If you tell him that the episodes are comic and that the comic sense is brought out by the strange miming of the actors, he will doubtless take your word for it, but he will receive no direct impression.

If, on the other hand, a motion picture shows him the grotesque and clumsy efforts of M. Jourdain to handle a foil or to execute the steps of the minuet, he will laugh spontaneously and naturally, and this will be an excellent way for proving to him that Molière knew how to portray the ridiculous and the contradictions in men's characters. But you may argue, why the film rather than the stage? The answer is: for various reasons, the first of which is that the use of the theatre is only possible for Paris and Parisian scholars, and useless for the provinces, which is enough to put it out of the question. It is not in any case at all an easy matter for pupils to visit theatres, and a pedagogic instrument ought to be at the disposal of the person who wants it when he wants it, and when he judges the conditions favourable for its use.

Here then we have the problem considered from the theoretical point of view. We may then very well be asked how is the matter to be practically realized, what examples have we to show of efforts in this direction, what possibilities the present trend of the cinema offers for teaching literature.

It is easy to answer these inquiries.

The cinema, as we have said, can supply us with abundant documentary material of various kinds. We can use both stills and films in this department. Any film which faithfully reproduces an epoch can provide us, for one reason or another with points of interest. We may cite in this connection *Ben Hur*, *The Sign of the Cross*, *The Three Musketeers*, *Notre Dame de Paris*, etc.

We must, of course, choose out pictures with a strictly scientific spirit, banning

fantastic works produced merely to amuse the public by popularizing legends and tales that have long been discredited among serious people and students.

It is, on the other hand perfectly possible to make short documentary pictures for pedagogic use in this section of literature. Thus films on the life and customs of a determined period, the history of theatrical scenography, landscapes, described by famous authors which permit comparisons.

The cinema can, as we have had occasion to remark, facilitate for pupils the general understanding of a work. PABST's *Don Quixote* is an example of this kind. It is a film with rare artistic qualities and produced with more than ordinary intelligence from Cervantes' ponderous and complicated work, packed with philosophy; the scenario writer has been able to choose the best known and most striking episodes, the attack on the flock of sheep, the liberation of the prisoners, the Duke's tourney, the attack on the wind-mills and the hero's death before the burning library. By grouping scenes together, and through the reactions of those who approach and surround Don Quixote, the producers have succeeded, in so far as it was possible, in capturing the figure of the hero and the feeling of the book.

Doubtless the film does not entirely represent Cervantes' work, but it was impossible that it should. At the same time, the pupil can derive much benefit from seeing it. He will get a good general idea of the book, and his imagination will be stirred and freshened. He will acquire the desire to read and know Cervantes, and he will find in *Don Quixote* a mass of attractive pictures.

Other good examples of recent films made from books include *La Maternelle*, from the novel of LÉON FRAPIÉ and *Colombe* from the work of MERIMÉE.

We should also not fail to note that many bad films have been made on these lines — in fact there are more bad than good — films which do not in any way meet the demands of fair criticism or offer anything

attractive for the teaching of literature. This, however, is not a question to enter into here. There should be a regular pedagogic commission charged with giving or refusing its approval for films of this type. We must always remember that films of this kind are not intended to take the place of teachers and study, but only to facilitate the process of learning and make it livelier and more attractive.

In the case of the theatre, the matter is still clearer. We ourselves defended these ideas at the International Cinema Salon in July 1933, and projected, for demonstration purpose, the film *M. Pourceaugnac*, based on the comedy-ballet of Molière. There are undoubtedly objections to be made against this picture and fantastic scenes in it that should be cut out, but in spite of everything, it shows very well that what can be done with films of this kind.

We must, however, come to agreement on one point: a film of any kind is, in a way, an adaptation. There is a world of difference between using the motion picture for literature classes and for purposes of scientific study. In a geography lesson, for instance, or a lesson in natural history, the film forms an integral part of the lesson as a demonstrative means corresponding to the experiment made before the pupil's eyes in a lesson on physics or chemistry. It should be well defined and definite when applied to specific instruction or any particular lesson.

On the other hand, since the film for teaching literature is only a synthesis or a means of exciting the imagination can it be used in the form of an adaptation of the original work? The question is a serious one and full of possible consequences. We must be precise.

Adaptation does not mean for us transforming a work to meet the requirements of modern taste. A work which has attained a certain age should be thoroughly respected in its spirit.

In our case, adaptation means bringing over in an intelligent manner, the salient

episodes of the work and its atmosphere, while preserving the essential lines of the original.

Doubtless, the ideal arrangement would be a complete and integral reproduction of the work such as is given on the stage. The high cost of full length pictures makes this out of the question at present. We must admit that literary films have to be made both with an eye to commercial possibilities and with due consideration of their usefulness for university film archives.

It may be that in the future filmed plays will be able to give us more.

After enjoying many big theatrical successes, a modern writer, M. Marcel PAGNOL, has gone over to the motion picture and after having put his own plays on the screen, is now working at making film versions of theatrical works of the classic repertory. It is not any commercial attractions which have inspired him to do this, but rather an artistic intention which he has more than once vigorously expressed. To quote him:

« Humanity has known at least three great inventions: the press, the registering of music, or the gramophone, and the registering of the acted play, otherwise the talking picture.

« The silent picture reproduced pantomime; the talking film reproduces the theatre.

« It must not be said that I have betrayed dramatic art. For three years now, I have been writing and proclaiming that the talking picture is the new stage form, that the theatre, abandoning its scenery and renouncing ephemeral representations that are dead almost as soon as they come to life will find

its true development on the screen, from which it can make its appeal to millions of spectators on the same day and at the same hour. I venerate and love, as much as anyone else, our great classics, and I am original in that my veneration and love have not been merely of a platonic kind. I intend to bring our classics on to the screen in their complete original texts. If, one day, the projections of *Le Malade Imaginaire* or *On ne badine pas avec l'amour* reach 25,000 in 15 months I shall be content.

« Do not tell me that this is impossible. If a play like *Fanny* has been able to do this, what may we not expect from a masterpiece? ».

We have then a good and useful cause to fight for in the use of the motion picture for the teaching of literature. Moreover, progress may soon be looked for, if we think of the excellent efforts that have already been made.

The advantages, moreover, surpass in a remarkable way the merely technical benefits obtained. They can penetrate through the school and the people to the very spirit of the nation. It is not enough merely to state that a nation's spirit is formed — among other things — by the intellectual legacies of the past if, as a matter of fact, the majority of a nation's literary masterpieces are only a name to the mass of the people. If, in a not distant future, our great literary works are able, through the medium of the film to exercise a moral and spiritual action on the masses, inducing the public to read the originals (is this too much to hope?) who will dare to say that this would not be an immense benefit for our national culture?

NORMAL SCHOOL TRAINING FOR TEACHERS BY MEANS OF PSYCHOLOGY AND SCIENTIFIC PEDAGOGY

BY

Adolph Ferrière

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THE Rome Cinema Congress considered among many other subjects normal school training for teachers and the psychology of children. I would like to consider these two subjects together and examine the question of technical or normal school training by illustrating child psychology and education.

It is obvious that the education referred to is of a different nature from that which the pupils at state normal schools are at present receiving and which they are later called upon to apply. This kind of education is traditional, regulated by law and scholastic curricula, national education in a word. Science, on the other hand, is international, as international as objective truth, towards which it is making a gradual approach.

Ought one then to say that the teaching of scientific pedagogy is useless or superfluous? Science and truth can never be considered useless. Are not science and truth perhaps, after all, at the base of the tradition of scholastic regulations? We must use the means that lead us to the desired end. The end, in this case, is the child's good, and the means to attain that will be those methods which contain the fewest possible errors and mistakes on the one side and imply the minimum of effort and loss of time on the other.

In countries with a lengthy scholastic tradition the teaching of scientific pedagogy will form an indispensable part of normal school studies. It will show to what point one can arrive when one goes beyond the strikct routine of school teaching.

No pedagogue is a slave to regulations to the point of being unable or unwilling to renovate and improve his technique in this or that detail. It is the sum total of the im-

provements thought out by teachers which urges pedagogic opinion towards reforms, and it is rare that the scholastic and legislative authorities refuse to approve and sanction with orders and eventually with laws those reforms and new ideas which objective science, the practical experience of teachers and the welfare of the pupils demand.

In certain young countries pedagogic methods based on the psychology of children have been taken up for some time. In these lands, the teaching of the new methods is even more necessary, since it will form the indispensable basis for the preparation of future teachers. It will not be a mere supplement or illustrated appendix to normal studies, but the very beginning of such studies.

Teaching by means of the motion picture has a marked advantage over book teaching because it substitutes the visible and dynamic example for oral explanation which has to be translated into perception and conception; in other words into logic. The usefulness of the book will always remain, however, since logic is indispensable. The book will hold its place in order to indicate the reasons for any act or phenomenon, the variety of possible and useful actions or acts the consequences of such acts or actions and their effects. This is because vital thought tends towards the future.

It may be said that practically, the cinema must confine its efforts to ordinary things as opposed to exceptional. It thus reveals the fundamental principles of self-education, the methods daily employed by the teacher, in a word, everything which is based on the constant application of psychological laws which are everywhere accepted as true, the application of which should be limited to

the essential and should forego the use of artifice. In this way, it will produce its due effect on simple minds.

The case occurs often enough that we have to explain to a woman or a young person what she or he should do. The person sometimes fails to understand. The little thing we have asked him or her to represent, evoke, or memorize proves too much for him or her. The pupil's answer is always couched in the same terms: «I haven't quite understood: show me what it is, and how it should be done». It is easy to understand the value of the cinema for teaching young people and adults the theory and practice (especially the practice) of the methods of the so called *new education* based on the discoveries of science and the psychology of children. To observe children at work, to grasp the true mission of the master is the best of all possible ways for giving a right direction and tendency to the studies of our future teachers. This study on its theoretical side should be explained by teachers and also from books. Not all normal schools offer their students the possibility of practical exercises where application of the methods of the active school can be made.

If often happens that instruction, practice and apprenticeship all take place in strictly traditional surroundings. I have met pupil-teachers of twenty years and even old teachers with a career behind them who knew nothing of the new methods. They did not even know the first elements of such methods. They had not learnt them from books — they had no time to read such books — nor by visiting the new classes. (Experimental schools did not exist in those parts).

The same thing can be said about supplementary courses for adult teachers. Such courses which bring together in turns and at intervals the teachers in the central halls of the Superior Institutes of Teaching or unite them in obligatory summer courses are indispensable. They awaken the teachers' memory, bringing them afresh into contact with theory. They permit the teachers to

become acquainted with the most recent scientific discoveries, with connected lessons that are much more efficacious than popular articles in pedagogic reviews. Further, they teach the masters the methods, and deductions of experts in the field and the results of the work and experiments of specialists in scholastic work and the active method. (Courses of this kind have existed in Switzerland since 1884, with the help and encouragement of the authorities).

But this is not sufficient. I mean to say that it is rare to find supplementary courses which answer the conditions necessary for the proper explanation and demonstration of the principles and details of modern scientific methods in a thorough and competent manner.

The motion picture has a task of the greatest importance to carry out in this field of activity, because it is by forming the character and aptitudes of the young pupil-teacher or the adult master that we form the character of the child and in the end of the nation. The entire progress of nations depends to a large extent on the clear intellectual faculties of the teacher, just as such progress will suffer if the teachers are not up to the level of their task.

We are entering here the kingdom of mechanical methods, of dead technique, of possible errors which may cause the gradual suffocation of youthful intelligences. It is our duty to make intellectual, physical and moral health, rendered almost tangible, penetrate into the schools and the life of the pupils just as they transform and beautify the life of the teachers.

In certain countries, all this has been duly understood. Unfortunately, those persons who had recourse to the motion picture in this special form — that is, to show teachers the practice of social moral and scholastic didactic methods — have not always been informed of the latest discoveries and deductions of modern science. Consequently they chose, for cinematographic representation, the best official lessons as given in the

regular curricula of their country. Certainly, for teachers who are subjected to rigid scholastic regulations and orders, the possibility of learning the new methods in the best way is a great help and assistance.

Official methods necessarily contain errors which psychology is capable of rectifying. All the force of suggestion that is made use of in propaganda work through the employment of the cinema will help to correct these mistakes. Official methods, moreover, are bound up with a law which limits them in time and space: in space for the country where the scholastic law obtains, and in time because a fresh ministry succeeding to the existing one can modify them. This for the reason that once a law has been recognized as a source of errors, it will almost certainly be altered, and it is well that it should be so altered. It follows that the film which illustrates methods based on a law that is losing its efficacy is itself inefficient.

In the United States, scholastic pictures have been made in supposedly ideal didactic conditions, which a capable psychologist could not but disapprove because such methods have been quite in contrast with the requirements of children's and young people's psychology. I saw in 1930 scholastic films shown in Buenos Aires which were full of pedagogic errors, and yet were lauded as being models of the latest in didactics.

The collaboration between authorities for making pictures and experts and psychologists do their best for the technical qualities of films and their practical application in modern education is an indispensable necessity. Still more indispensable is the existence of experimental or modern schools in which the new methods can enjoy every opportunity and advantage and where cine-producers can base their methods on experience with the living models under their care.

In 1927, on the occasion of the IV International Congress of *New Education* held at Locarno, some of the delegates, among whom we may mention Dr. O. DECROLY

and the writer of this article, founded an *International Association for films in the New Education* — films that were to be scientific-theoretical and practical-pedagogic. Owing to lack of means the association has never been able to assume an active interest, and has remained little more than an idea. The withdrawal of the nations within their customs barriers had a good deal to do with our unsuccess. The impulse given by the idea, however, worked miracles in the circles interested in the New Education.

At the 1929 Congress at Elsinor, and at the Congress of 1932 held at Nice, *new education* films were numerous. Their actual worth was not always high, however. Empiricism, exaggerations, a striving after the picturesque and the superfluous were evident on all sides. One film alone, *Home, chez nous à la Clochette sur Lausanne* seemed to fulfil all requirements of a school for young children where the methods of the *active school* and child psychology could be properly applied.

* * *

To sum up then, the requisites of a good scientific film for normal school pupils are as follows:

a) It should be strictly scientific and have a simple and universal character;
b) It should illustrate children's activity in the following scholastic fields:

1) use of auto-educative material (Montessori, Agazzi, Alessandrini, Decroly, Audemars, and Lafendel, Artus, etc.) (at the Universal Pedagogic Congress of Geneva in 1929 some 30 firms exhibited);

2) preparation and use by the scholars of the scholastic material used in the *Active Method*; classification of cards in index diaries based on systematic classification of objects in use);

3) methods of study and control (Winnetka, Dalton Plan, etc);

4) manual work in connection with the various branches of teaching (first grade of the *Active School* or *Method* intended as work shop;

5) practice in the *active method* in conformity with the curricula of the *Centres d'intérêt* (school centres) This second grade active method is used in several countries;

6) documentation, research for figures, objects, documents, proofs, and elaboration of same with collective work resulting therefrom. (Standardized individual work, organized collective work, individual work at choice, socialized activity, third grade active school method);

7) technique and practice of the « Serene school » method. Ordered and disciplined activity with a certain liberty of selection and time (concentrated activity of fourth grade of *Active School*).

e) to show the children in the act of putting into practice hygienic social moral and artistic rules and regulations of life:

1) elementary hygiene (principles of the nature cult applied to the growing infantile organism);

2) physical hygiene (natural gymnastic and preventive heliotherapy;

3) open air exercises and gardening, etc.;

4) manual crafts (carpentering, working in iron, cardboard, etc.);

5) applied arts (plastic arts, painting, small handicrafts);

6) various grades in the practice of disciplined autonomy for the pupils (special individual commissions and tasks squads, leaders, organized collective discussions, scholastic regulations);

7) choirs and orchestras;

8) rhythmic gymnastics;

9) sport and excursions.

All this must be given and practised without losing sight of the coordinated combinations of the various activities here listed as, for instance, excursions made with a hygienic or documentary or scientific or sporting purpose as the case may be.

d) The teachers' personal activity in the working of the *Active School* such as:

1) preparatory activity: observation of the children through their spontaneous gestures (notes to be taken on the children's ways and habits in order to understand their temperaments and psychology;

2) control by means of study of aptitudes, knowledge, etc.;

3) the teacher's contribution to the pupil's choice of a career trade or profession (at the age of from 12 to 16);

4) the teacher's activity in directing the pupils' work as per section b);

5) the teacher's coordinative work on the children's various contingent interests and the demands of society (curricula and state examinations, or better still, requests for explanations of useful and efficacious activities);

6) post-scholastic activity: formation of summer classes, arranging for teachers as pedagogic inspectors, medicine in schools and school doctors, school nurses, their work and mission in connection with the pupils' families; schools for deficient children, etc.

As can be seen, the field to be worked in is vast, and so far nothing or very little has been done in it. In a hundred years, it will be incomprehensible how in the year of grace 1934 there was such a penury of films coordinating theory and scientific and pedagogic practice with the work of the teachers themselves, who are the creators and supporters of the nation's health and its future greatness.

It would then clearly appear to be the moment to lay down a technical and scientific plan of an international character for this urgent question.

The I.I.E.C. is the body most suited to carry out this work, and it seems to me that it could not be entrusted with a higher and nobler task.

THE UTILIZATION OF THE CINEMATOGRAFH IN TECHNICAL TEACHING

BY

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THE «Film Library of the Schools of Higher Commercial Teaching» was founded at Paris in 1926 in response to the request of a number of teachers. This Association, which groups the French schools together and is recognized by the State, aims at forming a collection of films suited to the programme of these schools.

The originality of this association undoubtedly consists in the fact that it does not confine itself to the part of distributor but is primarily a creative organization. For some time past the association has been in a position to mount on its own account all the films that it produces, in its own premises, which are situated in the Higher School of Commerce of Paris, 79 Avenue de la République. The works produced by the Film Library are therefore perfectly suited for the teaching imparted in our schools.

I trust that I may succeed in contributing something to the study of the scholastic cinema question by summarizing here the results of an experiment extending over a period of more than eight years, during which we made a methodical use of the films of our Film Library, which had been conceived and carried out by us for the precise purpose, as stated above, of illustrating our courses. This experiment, therefore, was an experiment not only in the use of the teaching film but also in its creation.

Methods to be Used in Teaching by the Film.

A film that is well conceived and executed for a determinate didactic purpose becomes an integral part of the course. The teacher makes use of it,

as of any other means of demonstration, in the school premises where he teaches.

It is impossible to fix a general rule as to the most favourable moment for the projection, which depends on the subject. It may be given at the proper moment during the lesson, although the necessity of darkening the room means a waste of time, or it may be given after the lesson in those cases where the subject is easy to understand and when it is desired to show the real aspect of things by means of the screen.

There is, however, from a general point of view, a rock that must be avoided. After listening to the lesson, the pupil sees the film and, especially if the latter makes the explanation very clear, he frequently thinks he has understood it and that there is no need to make any further effort to dive more deeply into the subject and master it.

The cinema in this case becomes more harmful than useful; it suppresses the indispensable and fruitful struggle which the mind must make with ideas and facts, if it is to assimilate them; it is this struggle alone which places the acquisition of knowledge on a sound basis. We therefore prefer to allow a few days to elapse between the lesson and the projection, so that the pupil may have time for the personal work of assimilation.

By interrogating the pupil, we may assure ourselves that he has done this necessary work, and at the same time we are able to judge by his answer which particular points must be dwelt upon when commenting on the projection. This is the case when pupils are well prepared. Those who

have understood will find the confirmation of their conclusion as compensation for the efforts made; while those who have not understood so well will find in the film the clear understanding that they were unable to reach without it. For all the pupils without exception, the film constitutes the transposition into the external world of what they have learnt in theory, thus establishing that bond with reality which is of such importance in the teaching of industrial technique, which in its essence must be a living thing.

Thus conceived, the use of the cinema makes a deep impression and gives important results.

This has been demonstrated by numerous experiments, among which we may mention the following. The examinations that are held in our schools at the end of the scholastic year — the oral examinations being held in June — begin with two written compositions, for which three hours are allowed, on two of the subjects that have been taught in the preceding year. The subjects are drawn by lot and the candidates are given the names of the subjects on which they are to write only at the time of the examination. We endeavour, in this way, to obtain regular work on the part of students throughout the year, since they know there will be no time to cram up at the last moment the subjects selected for examinations.

One of the subjects thus drawn two years ago was Technology, the section being «The glass industry and the evolution of its technique».

I had already dealt with this subject, with the aid of a good film, at the end of December, that is to say five months earlier, and no one imagined it would be the subject of a written composition at this time. The film had made the whole matter so clear and had made such a deep im-

pression that the average number of marks obtained by the 120 compositions was the unusual one of a little over 14 out of a possible 20. The examiner was astonished to see faithful reproductions of the designs in the animated cartoons used to explain the working of the different automatic machines in the film.

Comment is indispensable; it must be made before and during the projection. In order to make a satisfactory comment, the teacher must obviously know the film well in all its details, and he must also have it timed, so that he may know when to speak and what to say. It is a good plan to give a summary of what is to be shown on the screen before beginning the projection, pointing out the scenes that should be studied with special care; and these points should also be called to the attention during the projection itself, care being taken to announce them just before they appear on the screen.

The projection may be interrupted if it is necessary to give a rather longer explanation of the scenes that are to follow. Our students are well prepared, and it is seldom necessary for us to have recourse to this expedient, which, when the subject is complete in itself, has the defect of interrupting the continuity of the impression.

* * *

This need of comment caused us to proscribe the use of sound films in our teaching. This was not done out of systematic hostility, but because we consider that the stereotyped and unchangeable discourse of the «speaker» prevents the teacher from talking and, however well done it may be, can never replace the living, variable discourse of the master, who knows his audience and what it needs. It may be that in this way we lose by not having the

reproduction of certain machine sounds which are not without interest, but it would be paying too dearly for them if we had to purchase sound films and the relative projection apparatus for the sole purpose of having the reproduction of such sound.

Utilization of Lantern Slides and Animated Cartoons.

It is obvious that lantern slides are used only for objects without movement. But the cinema can replace them with advantage, because the cinematograph camera being moveable, can register every aspect of an object just as the observer would see if he walked round it. An impression of truth is obtained in this way that could not be given by lantern slides.

The latter, however, have their use, since their fixity and permanence on the screen allow of long explanations and the detailed study of a mechanism or a piece of architecture. They have the further advantage of costing very little, and may be considered as sufficient when the subject is not worth the expenditure of the always high cost of a film.

Repercussions of the Use of the Cinema in Teaching.

I said above that a well made film is an integral part of the course, like any other demonstrative means. This conception of the film, however, is still far from being widely accepted by teachers, which fact is, I think, due to the extremely small number of films in existence which can be exactly adapted to given teaching.

When a film has been produced, the master making use of it must take into account the values it gives him and the time needed for its projection.

Experience has shown that a rational and methodical use of the cinema allows us to give a much less elaborate explanation of

many details, which can be presented much better on the screen with the accompaniment of comments. The result of this system is that the total amount of time given to a subject comes to the same, whether the film is used or not, and there is no noticeable repercussion either on the programme or the timetable.

We have also found that there was economy of time when a film was used on a complex subject, provided that we had a film sufficiently well done to make the subject clear.

I may mention one such case: our technology course includes a lesson of an hour on the manufacture of tiles for floors, roofs, etc.

We endeavour, in our teaching, to separate general ideas first of all, and we insist on this, because in our opinion they form the soundest and most enduring acquisition that our students make in the course of their studies. The question we are dealing with now is that of the rational utilization of heat, the best example of which is given by the kiln which supplies a continuous heat for firing the tiles. In spite of all care with which, one at a time, we endeavoured to explain the working of this kiln, there were always some of the students who had not properly understood, and we had either to give a new lesson or a supplementary explanation, and even these were not always sufficient for the comprehension of all the students.

For the past four years we have had a film in which the study of the kiln is given in detail by a succession of pictures and animated drawings. We are able to give our explanation in 40 minutes while the projection of the film takes 20 minutes, making a total of an hour for the lesson. The students understand it so well that we have never been asked to supplement our explanation; and what is more, even the least bright of them

answer most satisfactorily at the examination, when this subject happens to be drawn.

Thanks to the film, therefore, we have succeeded with a lesson and made a very delicate technique much clearer.

The question of manuals does not come into our teaching, but I wish to connect the question of the explanatory matter and figures extracted from films with that question, because we made a very conclusive experiment on one of these subjects. The salient figures of some of our films were enlarged, reproduced in phototype and distributed to students to be inserted in the margin of the notes in their class-books. These pictures, thus brought under the eyes of all the students, act as a reminder of the lesson and familiarize them with what they will see on the screen; and the examination of them, even a long time after the view of the film, recalls the movements that animated them. The yield of the projection is thus increased, by preparing the pupil for it and prolonging the impression made by it.

We intend to develop this method, but experience shows that it is best to decide, from the very beginning of photographing the film, which scenes are to be enlarged, and to photograph them separately, at an identical angle, by means of an ordinary camera. Such enlargements are better than those obtained from photogrammes of the film, which are never perfectly in focus.

We hope, also, to publish some explanatory notes, including a list of titles and indications of the relative scenes; that is to say, a brief monograph of the subject, accompanied, in the case of an industry, by the principal economic data.

There is no doubt that the idea formed by the film and the relative notes and drawings would give the student all the elements necessary for a complete understanding

of the subject, and would be of inestimable aid to the master.

**Subjects in which
the Cinema can
be Used with
Advantage.**

The cinema is not everything in teaching and, unlike those who see a panacea in it, we consider that it is useless in many subjects and should be used sparingly even in those subjects where its use is advisable.

Even in reduced size, the film is always expensive, and its use should therefore be excluded whenever the benefit drawn from it by students would not be such as to justify the money and time spent in producing it. Film should be even more rigorously excluded when the additional knowledge that it brings can be gained at the cost of a certain effort, by reflection or the simple observation of the external world. In fact, it should be excluded just for this reason, for students are only too liable to avoid making an effort, and our duty, on the contrary, is to stimulate them to make it.

Up to the present, our Film Library has dealt only with the applied sciences and industrial technique: mechanics, machinery, technology, for it seemed obvious that the cinema was needed mainly in the dominion of fact and movement. It is now thinking of producing or purchasing, as soon as possible, films on economic or descriptive geography. The teaching of drawing is very efficaciously completed by the film, but it is not our task to dwell on the very interesting results obtained, which are now known to everyone.

We do not intend to speak, either, of the natural sciences, for they do not come within the realm of technical teaching, but we must acknowledge the utility of the cinema in these subjects.

Perhaps physics and chemistry properly so called may have recourse to the cinema,

but only when it is necessary to show rare experiments or those which would be difficult to reproduce in school laboratories. Experiments that can be carried out in these laboratories should, on the contrary, invariably be done by the master.

On the other hand, we do not see exactly what aid the cinema can give in certain subjects, such as history, law, political economy, accountancy, financial mathematics or even mathematics proper, outside a few examples of descriptive geometry or the geometry of space, or in languages.

It must be understood, of course, that it is quite possible to conceive a film on any subject and sometimes even to reduce into concrete form the most abstract ideas by means of analytical or synthetical animated cartoons. I have had occasion personally to make films dealing with the scientific organization of labour, one of which is used in the Higher School of Aeronautics to illustrate a course on those methods of organization in that industry. They tell me that it helps to make the subject much clearer, but such cases are exceptional and we should not generalise from them.

**Special Qualities of
the Projection
Apparatus and
Lantern Slides in
Schoolrooms.**

The apparatuses on sale at the present time are as a rule good, but choice must be made of those that can be easily handled.

The maintenance of these apparatuses is of the utmost importance although it is unfortunately only too often neglected: proper oiling, periodical tightening of nuts and screws that have been loosened by vibration and especially the perfect cleaning of the gearings, grooves, etc. with which the film comes into contact.

It is impossible to insist too strongly upon the fact that the deposits of gelatine left by the film during its passage, becom-

ing hardened, scratch the surface and render it useless.

The necessity of a good projection must always be kept in mind. Young people are too accustomed to seeing perfectly projected films in cinemas to accept an inferior projection in school. The lack of luminosity, in addition to disillusioning students, makes it impossible to see a number of details, while the scenes in chiaroscuro which the author of the film arranged expressly to give the character of certain interiors such as laboratories or workshops, with exactitude, become invisible.

It is therefore necessary to have a sufficiently powerful source of light, a correct optical system and a good screen.

We prefer the arc-reflector whenever it can be used.

The rigid screen formed of a wall or a canvas drawn tight over a frame and if possible running in grooves is preferable; the layer of white gelatine that covers the surface with time only increases its reflecting power.

* * *

An ideal room for projecting a film would be one where small lamps by each student enable the latter to take notes, but although such an installation may be necessary in a drawing course, we think it can be dispensed with in other cases.

Instead of writing, students ought to study the projection attentively and listen carefully to the comments. This of itself means a considerably strain, and they would need a much greater training than they possess to be able to take notes also, at the same time.

The best thing is to have the room in penumbra, so that the teacher may keep an eye on his audience and follow its reactions. We attain this end by drawing

the blinds of the windows furthest from the screen half-way, but this necessitates a very luminous projection.

Yield of the Cinema in Teaching. I mentioned above some conclusive examples, taken from among many, in corroboration of the obvious fact that a well made film — and I must insist on this qualification — contributes to the acquisition of knowledge in the most effective way.

There is no doubt, either, that it also helps to develop the spirit of observation and especially the memory, if the teacher makes use of it to this end: and to some extent it influences the imagination and therefore the creative faculties.

We have not noted any action of the film on character. I am of the opinion that the cinema, properly used in technical teaching, as in our case, is an aid of the first rank and becomes daily more so: but I repeat that we must not look upon it as a panacea for all the ills of the intelligence or a sure stimulant of all its qualities.

In the case of the cinema, as in all complements of an experimental order, the yield increases with the number but only up to a maximum, beyond which it generates confusion and fatigue.

It must therefore be used with method and restraint, in order not to cause intellectual and visual fatigue, which are clearly evident in this case and are soon shown when it is necessary to follow with great attention phenomena or events that succeed one another rapidly on the screen.

Teachers and the Cinematograph. The Creation of Films. It is possible for every teacher to have the aid of the cinema in his teaching; he has only to ask for it. But before using the film he must follow a special preparatory course in order that he

may know how to co-ordinate the two parts of his teaching, the verbal explanation and the film. But is not this one of the chief qualities of a teacher, namely constantly to modify his methods for the better, and introduce new features in them? «Pedagogical formation» is a very comprehensive term.

As to technical formation, if we limit ourselves to that inherent in the manipulation of projection apparatus and film, what is needed is so slight as to be negligible, namely, the possibility of control when an assistant is charged with the projection and the care of films, or a simple initiation, which means nothing more than a little attention and the formation of a habit when the teacher himself has to take charge of the projection and maintenance.

* * *

In the reproduction of didactic films, on the contrary, the teacher's task is one of the highest importance. I wish to refer to it here, profiting by the experience acquired during eight years in our Film Library.

First of all, let us define the didactic film. It must not be confused with those pleasantly superficial films which are intended to please but not instruct the public and which are called «documentary» films, a term that may be used ironically if we keep to its ethnological meaning. We know very few of such films that really form a documentation of the subject, at least when they deal with industrial problems. The didactic film is an instrument of demonstration created for a very definite purpose, a given order of teaching, with the same scientific exactitude as the lesson that it illustrates and completes. Its realization is essentially a pedagogic work in which the teacher must have the preponderating part.

The question is not, however, generally

understood in this way. It is still customary to ask teachers for ideas and to charge a cinema director to carry them out on the screen. Such an association is paradoxical, since all the means of expression whose choice is inherently a pedagogical affair, are left in the hands of a man who has nothing to do with pedagogy.

When it is remembered that these means have many more nuances than are to be found in a book or in words, and that their careless use may lead to results that are nonsensical, it is no wonder that the greater number of films obtained in this way are, to say the least, very far from responding to the definition we have given.

The teacher must therefore once be charged with his proper task, first giving him that technical formation which will enable him not only to conceive a plan that can be realized on the screen, but also to direct its execution.

The cinema is an art which involves a trade that must and can be learnt.

We do not mean to say that all teachers must have this technical formation, but if we are to have real teaching films, it is indispensable that a certain number of teachers should be technically trained, so that they may create films or act as a con-

necting link between those who wish to produce them and the artisans of the cinema.

It was under the guidance of this conception that our cinematograph was carried on from the very beginning. Several of us went through the necessary training, and for a long time all our films were not only conceived but carried out in every detail of their execution and directed by our teachers.

We have gone even further, by eliminating every kind of intermediary. At present, we deal directly with the artisans of the film, cameramen, designers and distributors, and the mounting is done in our own premises, which have been equipped for the purpose. The Film Library has become its own publisher, with the result that the cost price has been greatly reduced and so enables it to increase its production.

We can hardly give our opinion of our own films, but we can at least affirm that they enable us to obtain important results in teaching.

In conclusion, we hope that our example may be followed, either by similar groupings to our own or by producing firms which will ensure the future production of really didactic films by securing the assistance of specialized teachers.



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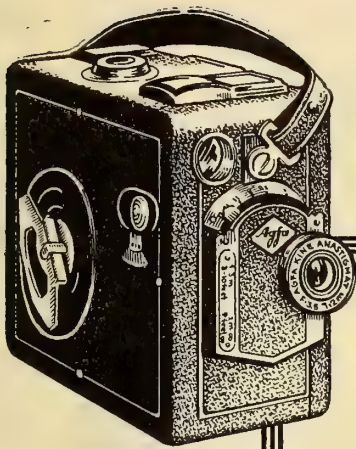
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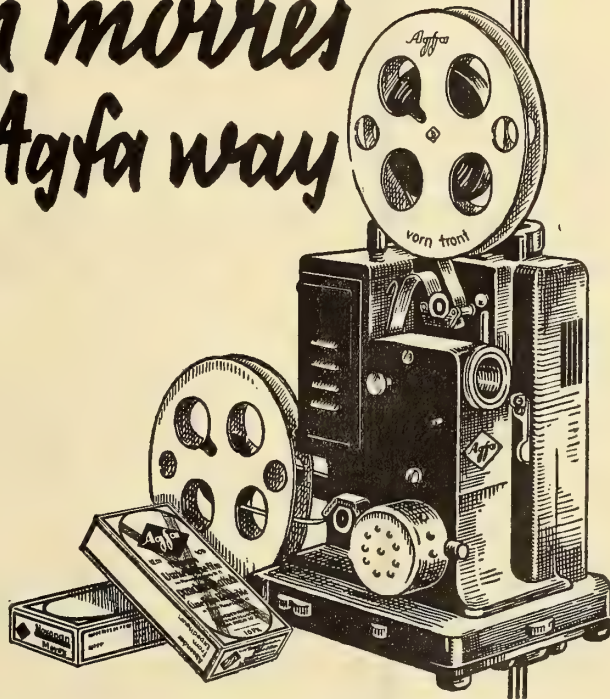
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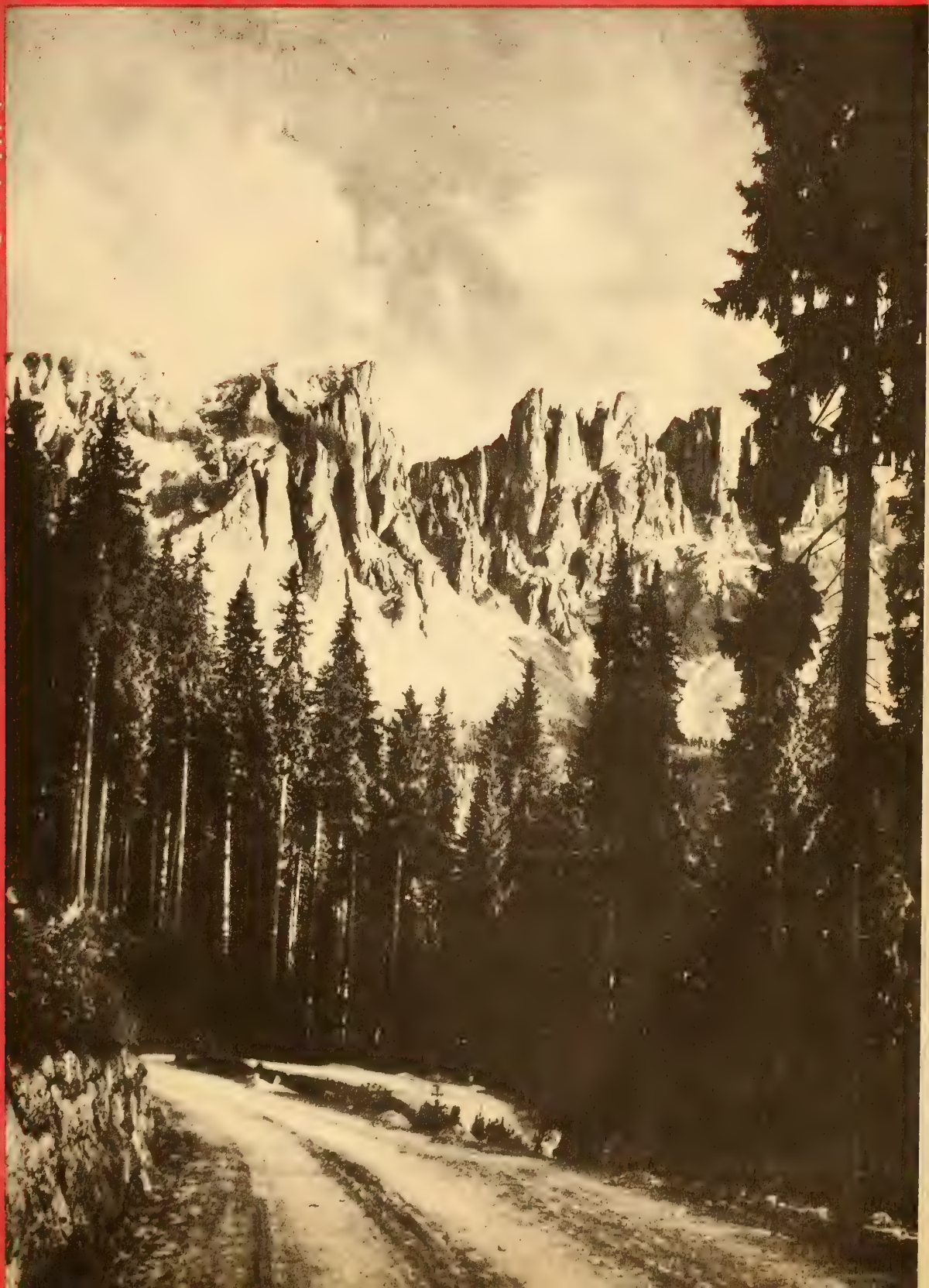


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INTERNATIONAL REVIEW OF EDUCATIONAL CINEMATOGRAPHY

LEAGUE
OF
NATIONS

ROME
NOVEMBER
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THE EDUCATIONAL FILM IN THE WORLD OF LABOUR

(COMMUNICATION FROM THE INTERNATIONAL LABOUR BUREAU)

I.

THE INTERNATIONAL LABOUR OFFICE AND EDUCATIONAL FILMS

The International Labour Office has always taken an interest in educational films.

In 1926 it took part in the first International Cinema Congress held at Paris, and communicated preliminary reports on the role of the cinema in workers' spare time, and on occupational diseases in the cinema industry.

The Office collaborates closely with the International Institute of Educational Cinematography, and it is officially represented on its Governing Body and Executive Committee. The relations between the Office and the Institute form the subject of an agreement (1) which provides for exchange of legislative, statistical, etc., material and for systematic collaboration.

Apart from these general relations, the following facts will testify to the Office's interest in educational films.

1) In 1927 the Office library started a catalogue, which it keeps up to date, of cinematograph films on social questions.

2) For several years the « Co-operation Information » published by the Office has given, on separate pages that can be put together, lists of films produced by or for co-operative organisations in different countries, with particulars of the producers, length, and when known, the price or rent. The aim was to make each film generally

known and to facilitate loans, exchanges, hiring, etc. (1)

3) Since 1925 the « Industrial Safety Survey » published by the International Labour Office has printed material on the cinema in relation to accident prevention. At the 1928 and 1929 Sessions of the Conference, when industrial safety questions were on the agenda, some 30 safety films from various countries were shown to the delegates. Further, the International Labour Office jointly

(1) But this arrangement was abandoned for several reasons, one being that while it had a documentary interest, owing to customs difficulties it could not serve the practical purpose for which it was instituted. It should be said, however, that the co-operative movement continues to interest itself in all activities of this kind.

In a letter of 2 February 1934, the Secretary-General of the French National Spare Time Committee, Mr. A. Fauconnet, who also conducts « L'Agence Co-op » makes the following practical suggestions:

1) It is better to make films intended to be commented rather than talking films;

2) These films should not last longer than ten minutes;

3) In every country they should be given over to a national organisation not seeking any profit (co-operative film library);

4) Schools, colleges, etc., should be informed where they can obtain the films and on what hiring terms;

5) All organisations requiring films should subscribe to a monthly magazine, published by the international organisation, and reviewing new films. The last page might give a list of existing films, so that each organisation could compile a small catalogue;

6) These films should be placed at the disposal of commercial amusement undertakings with a view to educating audiences and earning a rent to pay off the cost of the films.

This system of « curtain raisers » might prove satisfactory to cinema theatre owners and instructive to audiences and at the same time help pay off the cost of the films.

(1) A similar agreement has been concluded with the International Institute of Agriculture.

with the International Institute of Educational Cinematography set up a committee of safety film experts. This committee is composed of three cinematograph experts appointed by the Institute, and three safety experts appointed by the Office. At a preliminary meeting of technicians held in the Office in December 1929, at which the cinematograph experts were chosen, a first discussion of the utility of educational films for accident prevention resulted in the adoption of a resolution and two recommendations of a practical nature (1).

4) The Bibliography of Industrial Hygiene published by the Office has a section for films.

5) The question of the cinema and agriculture was placed on the Agenda of the Fourth Session (Rome 1929) of the Mixed Advisory Agricultural Committee, which includes experts appointed by the Governing Body of the International Labour Office and by the International Institute of Agriculture. At its Sixth Session (Rome, March 1932), the Committee had before it a final report, prepared by the Director of the International Institute of Educational Cinematography, on the use of educational films as instruments of propaganda and education in agriculture.

6) As regards conditions of labour, in response to various requests for information, the International Labour Office undertook inquiries into the employment of children in the cinema industry, and the results were published in the *International Labour Review* of February 1929. At its Session of 1929, the Advisory Committee on Professional Workers discussed a report on working conditions in the studios. This report was published in the *International Labour Review* of June 1931.

7) Lastly, the recommendation concerning the utilisation of workers' spare-time, adopted in 1924 by the Sixth Session of the Conference, is of special importance for the development of educational cinematography.

As will be seen from this brief enumera-

tion, the interest of the International Labour Office in cinema questions and its collaboration with the International Institute of Educational Cinematography have been continuous, and this is one of the reasons why the present memorandum has been prepared for the first International Congress of Educational Cinematography held in April at Rome. It is hoped that it will be of some service in advancing the great and vital cause of educational cinematography.

II.

THE INTERNATIONAL LABOUR OFFICE AND THE PRODUCTION OF FILM

I. GENERAL. — In a propaganda pamphlet published on the occasion of the tenth anniversary of the International Labour Office in 1929, a writer said that the Office was not filmable. He doubtless meant that the work of the Office was not the stuff of which films are made. We must emphatically disagree with this assertion, which seems to be as frivolous as it is ill-founded, if only for the reason that no subject is specifically filmable. In cinematography, the subject counts for little, the presentation for almost everything.

The international Labour Office is eminently alive. No other organisation has its finger more constantly on the world's pulse than the International Labour Organisation. It lives in the very midst of the things of to-day; more, it is, and to a remarkable extent, shaping the world of to-day. And not only is the Office drawn into the greatest and most pressing of man's problems — those of his daily bread — but in the performance of its own specific tasks it is inspired by moral principles that are most essentially human. The Preamble to Part XIII of the Treaty of Peace outlines a veritable system of ethics. Even in cinematography, there can scarcely be any better source of inspiration than powerful moral principles.

(1) See Appendix.

2. TYPES OF FILM. — There is not only one, but four types of film that the International Labour Organisation might inspire, according as it is looked at from the angle of the legal status of the Office, its underlying principles or its activities.

The International Labour Office is a *technical organisation*.

It is an expression of contemporary *industrial civilisation*.

Its work derives from *moral principles*.

It performs *definite tasks*.

Keeping to educational films, the only ones in question, here, it is not impossible to imagine;

a) Films explaining what the International Labour Organisation, and more particularly, the International Labour Office is, in theory and in practice;

b) Films illustrating the principal economic and social problems of industrial civilisation;

c) Films justifying and explaining fundamental moral principles;

d) Films illustrating the problems dealt with in the various Draft Conventions framed by the International Labour Organisation.

The films under heads (a) and (d) form the first category. These are educational films in the strict sense, or better still, instructional films; but if intelligently conceived, they could prove to be effective means of propaganda. A technical subject is not necessarily a dry subject.

The films under (b) and (c) form a second category, to which we attach considerable importance. One of the ideas dearest to Albert Thomas was the humanism of labour. This new humanism might find eloquent and magnificent expression in the cinema. Every civilisation is based upon a few great moral principles, whose development is marked by concrete acts or by incidents, whether real, legendary or symbolic. Just as the Christian civilisation of the Middle Ages created vast Bibles in stone, the cathedrals, so can we create a cinematographic encyclopaedia that

will faithfully depict the new world of labour.

To make these ideas clearer, we may give by way of example, a list of subjects for each of the types of film mentioned.

a) - *What is the International Labour Organisation?*

(Part XIII of the Treaty of Peace; the principle of tripartite organisation. Stress the close connection between the various elements of the world of labour and their natural expression through the Organisation).

What is the International Labour Office?

(Description of the working of the Office, its sections, its daily tasks).

What is an International Labour Convention?

(Explain the reasons for drafting Conventions; the drafting machinery; ratification procedure; application).

b) - *Industrial agreements*.

(Explain what industrial agreements are; their economic functions, their social effects, and what the Labour Organisation may expect of them).

Rationalisation.

(Explain what is meant by the rationalisation of an undertaking; the principal methods, their positive and negative consequences; what a healthy conception of rationalisation should be).

The recruitment of labour.

(Show the different forms of placing organisation, and the relation between placing and unemployment).

c) - *Social justice*.

Co-operation.

(Both these themes can be illustrated in short films turning upon an event, preferably of a general nature, in the labour world).

d) - *The Convention on the 48-hour week*.

The Convention on Compensation for Industrial Diseases.

The Convention on Night-work in bakeries.

(For each of these subjects, illustrate

by concrete examples the situation existing before the Convention was applied, the circumstances that it was intended to remedy, and the remedies to be applied).

3. INFLUENCE OF THE PUBLIC. — Generally speaking, it may be said that the various kinds of film appeal to various classes of the public, e. g. school-children, trade-unionists, the general public.

It is also clear that only certain kinds of film suit certain classes of the public. The particular class catered for will determine the manner in which a subject should be treated: the International Labour Office could scarcely be explained in exactly the same way to children of 12 or 14 years as to adult workers; also the subject may lend

itself better to a particular form of treatment rather than another; sometimes it will be better to have a simple descriptive film with no attempt at a story, intended to be accompanied by a lecture (unless this is directly recorded on the film), and sometimes a short play designed to strike the imagination of the public, especially if the audience is young.

Further, films may be of more or less permanent value (e. g. those in categories *a*) and *c*)), or on the contrary, be essentially topical (in particular those in category *d*) or even some in category *a*))(1).

Starting from the three factors mentioned — nature of the public, nature of the subject, degree of actuality — we may compile the following table:

Relation between the nature of the public, the nature of the film, and the degree of actuality.

NATURE OF THE SUBJECT	NATURE OF THE PUBLIC	
	Films of permanent interest	Topical films
<i>a</i>) The International Labour Organisation and its method of working	School children, Trade unionists.	General public.
<i>b</i>) Problems of industrial civilisation	School children, Trade unionists.	
<i>c</i>) Fundamental moral principles	School children.	
<i>d</i>) Definite tasks of the International Labour Office (Conventions)	Trade unionists.	General public.

It will be seen that certain subjects lend themselves to three different types of film, while for others, a single type meets all requirements. For example, a film on the working of the International Labour Office might be composed: *a*) for school children, with the help of strip cartoons and a simple story; *b*) for trade unionists, emphasising the aspect of the workers' rights and the relations between the unions and the International Labour Organisation; *c*) for the general public, emphasising the actuality of the Office's tasks and giving prominence to members of technical committees or the Governing Body. On the

other hand, a film dealing with fundamental moral principles will appeal in the main to school children, whose outlook should be formed as early as possible, and this by fostering moral standards in them that will determine their every-day actions when they grow up. School children then should be given useful lessons in human co-operation. Although adults are inclined to scoff at films of this kind, on children they may

(1) The interest of the general public in the International Labour Office might be aroused for instance on the occasion of a session of the Governing Body or of the Conference.

exert a decisive influence and prepare the ground for the growth of a new outlook.

4. PRACTICAL POSSIBILITIES. — The prospects of actually producing films, of whatever kind, depend essentially on financial considerations — the capital outlay and the chances of selling or hiring the film. As regards outlay, there are two questions to consider: 1) the initial sum required for the production and the means of raising this sum; 2) the placing of the finished film, and recovery of the outlay.

Who is likely to advance the money for such films? It would seem that certain official, or semi-official, or even private support may be reckoned upon: school or agricultural cinema associations, public or private associations for workers' spare-time, leading public bodies, trade unions, international associations for mutual understanding and assistance, etc. Also, the cinematograph companies themselves might be interested in the movement. The expenditure required should be relatively modest, and there would appear to be prospects of recovering it.

Three classes of public, then, have been distinguished, and films are needed for all three. It will be best to consider them separately. As regards school children, few films would be needed, and none would call for a large outlay. Moreover, there would almost certainly be an outlet for them. A silent version of such films could be given with captions in any language, or at a little more expense, with a sound accompaniment appropriate for the country in question. It should also be borne in mind that school films with sound accompaniments are usually short films that are not very costly.

As to films for trade unionists, while they should be more numerous than those for school children, they would, like the latter, be sure of a regular public; and here again production costs would certainly be low, for the subject requires no professional action, and only short films are used.

There remain the films for the general

public. At present curtain-raisers in cinemas are supplied to managers free of charge by the distributing agencies, so there can be no question of profit. If it was decided to show such films at certain times of the year, cinema managers and distributing agents would certainly not object. It does not seem that the cost of topical films need be higher than that of ordinary curtain raisers.

In conclusion, it may be hoped that the foregoing pages have sufficiently covered the various aspects of the production, exhibition and circulation of educational films.

III.

THE CINEMA AND INTERNATIONAL LIFE, WITH SPECIAL REFERENCE TO THE PROBLEMS OF LABOUR AND THE GENERAL CONDITIONS OF THE WORKERS

I. THE INTEREST OF THE INTERNATIONAL LABOUR OFFICE IN THE QUESTION. — The Preamble to the International Labour Charter, as Part XIII of the Treaty of Peace may be called, refers to the perils to world peace inherent in conditions of labour entailing hardship and privation, and mentions the obstacles to social progress, both national and international, constituted by the failure of any nation to adopt humane conditions of labour (1).

The functions of the International Labour Office include the collection and distribution of information on conditions of labour in the various countries and the exploration of means of unifying these conditions, especially by the adoption of international conventions and recommendations.

Hence, the numerous questions considered by the Congress are so many sources of inter-

(1) « And whereas conditions of labour exist involving such injustice, hardship and privation to large numbers of people as to produce unrest so great that the peace and harmony of the world are imperilled...

« Whereas also the failure of any nation to adopt humane conditions of labour is an obstacle in the way of other nations which desire to improve the conditions in their own countries. »

est for the International Labour Office, as has been seen in the opening chapters of the present report, and the question of the cinema and international life is no exception. It gives rise to two questions with both of which the Office is concerned:

1) How can the cinema demonstrate the international repercussions of industrial, social, economic and political happenings that seem, often quite wrongly, of purely national interest?

2) How can the cinema spread a knowledge of movements, plans, schemes and experience of worldwide interest; in other words, express the principal aspects of international life?

It may even be said that the reality of international life will not be clearly attested until the questions set out above are concretely treated in a single socio-economic film. In this domain, as in the political, it may be that some events and policies interest only small national groups; but their intrinsic importance and their augury of good or evil call for consideration from the international standpoint. The stone that falls into the water need not strike the centre of the pond, but it will set up ripples that spread over the whole surface. If we want to stop the ripples, we must prevent the stone from falling into the water and to do this we must consolidate the ground.

It will be well to consider a few concrete cases from the angle of their cinematographic and educational possibilities, especially for adults. They do no more than offer suggestions of what could be or could have been done, general adumbrations rather than definite proposals.

2. THE LAW OF SUPPLY AND DEMAND; ITS EFFECTS ON HUMAN LABOUR. — It is plain that the international collaboration that has been evolving during the last ten years is not yet understood by the mass of the people, and the consequences even of a general law like that of supply and demand are not clearly perceived in their social and international aspects. For instance, the first prin-

ciple of the International Labour Charter — that «labour should not be regarded merely as a commodity or article of commerce» — is closely bound up with the law of supply and demand. This law should receive concrete treatment by the cinema, but with no departure from the truth: it seems both possible and desirable to demonstrate its reality without any exaggeration, and not only from the purely economic standpoint but also as it relates to labour, itself a factor in production costs. It will be immediately apparent that such a subject, impinging as it does on the problem of production, would raise the question of wages, and finally compel a popular exposition of the principles of political economy, principles that in many respects regulate the growth of international life. It would also be only natural to show what becomes of the law of supply and demand in economic systems other than the capitalist, and how in every economic system there is an endeavour to mitigate its harmful influence on human personality.

3. COMPETITION. — The law of supply and demand has a close bearing on certain modern forms of competition (cartels, trusts, etc.) arising in national and international trade; and it is common knowledge that competition often reacts adversely on living and working conditions. It is this effect of competition that is alluded to in the Preamble of the International Labour Charter quoted above. Certainly some emphasis should be laid on the stimulus and fruitfulness of economic and industrial freedom, its creative achievements, its international aspects (the consequences of great inventions and discoveries); but there is another side of the picture: the destructive social effects of competition that have become more marked since the industrial revolution. To-day, fierce competition still foment rivalries and disputes; and the people suffer, both individually and collectively. This has been shown by Mr. G. A. Johnston in a study of «Industrial and Labour Influences making for War». This study contains interesting sug-

gestions of an historical order that could be utilised in films (1).

4. INTERDEPENDENCE. — From competition to interdependence is only a step, but a step to another vast domain for the educational cinema. All modern international life is shaped by the gradual, too gradual, realisation of the truth of the law of interdependence, which when interpreted in a spirit of comprehension and mutual aid is the law of common interests and human unity.

To-day, opportunities for depicting the reality of interdependence are many. In his book *«Les contradictions du monde moderne»*, the French economist Delaisi has imagined a Parisian's day, which is particularly instructive, as may be judged from the following extracts:

«When he gets up in the morning, Monsieur Durand washes himself with soap (made with groundnut oil from the Congo) and dries himself with a towel made of cotton from Louisiana. Then he dresses himself: his shirt and collar are made of Russian flax, his trousers and coat of South African or Australian wool; he adorns his neck with a silk tie made from Japanese cocoons; he puts on his shoes, made of leather from the hide of an Argentine bullock, tanned with German chemicals.

«In his dining room, complete with a Dutch sideboard made of wood from the Hungarian forests, the table is laid with white-metal ware made from the copper of Rio Tinto, the tin of the Straits Settlements and the silver of Australia. Before him is a new loaf made with wheat which, according to the season, comes from Beauce, Rumania or Canada. He eats eggs freshly arrived from Morocco, a slice of mutton that a refrigerator has perhaps brought from the Argentine, and tinned peas that have been grown in the sun of California; for dessert he takes English jam, made with French fruits and Cuban sugar, and he drinks an excellent cup of Brazilian coffee.

«Thus replete, he goes to work. An electric tram (driven by Thomson-Houston gear) drops him at his office. There, after looking at the quotations for the Liverpool, London, Amsterdam or Yokohama exchange, he dictates his correspondence, to be typed on an English machine, and signs it with an American fountain pen. In his workshop, machines built in Lorraine under German patents and running on English coal manufactured materials from all parts of the world into articles of Paris fashion for Brazilian customers. He gives directions for forwarding them to Rio de Janeiro by the first German liner calling at Cherbourg.

«Then he goes to his bank to cash a cheque in florins from a Dutch customer and buys pounds to pay an English wholesaler. The banker seizes the opportunity to tell him that his account is very large and that oil shares are rising. He advises him to make an investment. Monsieur Durand allows himself to be persuaded; but as it does not do to put all one's eggs in one basket, he gives instructions for the purchase of four shares of Royal Dutch and ten of a French company affiliated to Standard Oil.

«After which, well satisfied with his day, he suggests to his wife an evening at the theatre. Madame Durand dons her best gown (by Paquin), her pretty blue fox cape (from Siberia), her diamonds (from the Transvaal); then they go out to dine at an Italian restaurant. They wonder whether they will go to see the Russian Ballet or hear Raquel Meller at the music hall, unless they prefer to see a play by Gabriele d'Annunzio with Ida Rubinstein in the leading part and scenery by Bakst. Lastly, after supping in a «Caucasian» cabaret to the strains of a negro jazz band, they return home; and, tired out by a day so well filled, Monsieur Durand falls asleep under his eiderdown (from Norwegian ducks) dreaming that France is certainly a fine country that can get on perfectly well by itself and cock a snook at the rest of the world».

On a general theme of this kind, and by broadening out the conclusions, and in some

(1) *The Causes of War*, Macmillan and Company, London, 1932, Mr. Johnston's study is one of a series dealing with various causes of war.

respects by renationalising it, it will be possible to compose a film eminently and profoundly international.

Further, in the structure and development of the economic crisis, instructive illustrations are to be found, quite apart from any schematic representation of the theory of crises. Without being strictly scientific, or over simplified which would be pseudo-scientific in a subject so complex, some essential features should be singled out, e. g. *a*) the course of the world economic depression; *b*) the spread of industrial stagnation (production, consumption, etc.); *c*) tariff consequences (closing frontiers, raising barriers); *d*) unemployment (economic, social and domestic consequences; insurance, etc., etc.). Some of the heads of a report such as that compiled in 1931 by the Director of the International Labour Office may serve to show how a document of this kind affords a better understanding of international life.

Unemployment problems in 1931. (Extract from the « Report of the Director »).

I. -

Social dangers (p. 11); The International Labour Organisation and the depression (p. 11); Resolution of the Governing Body on unemployment (p. 11).

II. - *The Economic Depression.*

Its Extent, Causes and Possible Remedies. Unemployment statistics (p. 14); Extent of the economic depression (p. 14); Causes of the depression (p. 15); The agricultural depression (p. 17); Industrial over-production (p. 19); Monetary problems, gold (p. 20); Lack of confidence and its effects (p. 22); Fall in the price of silver (p. 22); Too high costs of production (p. 23); Disturbances in commerce (p. 24); Population and unemployment (p. 28); Mechanisation and rationalisation (p. 30); Delimitation of responsibilities (p. 31).

III. - *Direct Action by the International Labour Organisation against Unemployment.*

Direct action against unemployment (p. 32); Placing (p. 33); Migration (p. 36); Unemployment insurance (p. 36); Public works (p. 41).

IV. - *Hours of Work, Wages and Unemployment.*

Another line of action for the Organisation (p. 44); Short time (p. 44); The workers' case: permanent reduction of hours of work (p. 45); The employers' case: costs of production (p. 47); The level of wages (p. 49); New considerations (p. 51).

It would also be possible to show the interdependence of industry and agriculture.

On this point, in an address which he delivered at Geneva on *Peace and the Teaching of History and Geography* (1) Mr. MAURETTE, Assistant Director in the International Labour Office showed what could be made out of a description of human effort, variety and solidarity.

« France — he said — is indeed a country both of agriculture and industry, of Mediterranean and Atlantic crops, of tillage and stock-breeding, of heavy industry and those more delicate manufactures which have come to be known as *articles de Paris*. But, for all that, she could not forego contact with other countries. Imagine her without world trade! Where would she find the petroleum, copper, cotton, rubber and silk of which she stands in need? Where could she sell a great deal of her potash, iron ore, machinery and *articles de Paris*? She needs the other countries, all of them, and if here we are dealing with an outside case, how much more necessary is such interdependence, how indispensable, in the case of countries which are almost entirely agricultural or almost entirely industrial? Try to picture them shut off from the rest of the world: it would be tantamount to several centuries of retrogression.

« Interdependence of production, interdependence of trade, and also interdependence of man! Where would the new countries be if they had not been able to draw upon Europe, that reservoir of surplus man-power? Human migration, consideration of the attraction which large cities have for the population of rural districts, together with the long succession of trains bearing the

(1) See Educational Survey, December 1933, pp. 157 et seq. League of Nations, Geneva.

produce of the countryside to the city, all point to that idea of interdependence which every master worthy of the name will be able to instil into his pupils, just as easily by describing life on an island inhabited by a couple of dozen fishermen as by an account of the activities of capitals such as Paris or New York, or a port like Marseilles or London heaped with the produce of the entire world. And this notion of economic interdependence will bring even the most prosaic and the most utilitarian of his young pupils to sound ideas of war and peace by a train of reasoning at once simple and exact. All political events, without exception, are followed by economic consequences. The latter can never be limited to the country in which the political event occurred; they are always world-wide in their effects. Economic consequences on a world scale in their turn produce political consequences of equal scope, so that it is impossible to live undisturbed in one's own land unless others are living undisturbed in theirs ».

In the same connection, a study like that published by Mr. de Michelis in the *International Labour Review* of November 1931 on « A world programme of organic economic reconstruction » deserves consideration from the standpoint of the educational film.

It is in this way that due prominence would be given to means of lifting the world depression and preventing its return. In some cases specific proposals such as large-scale international public works and certain schemes for industrial recovery can be treated in their relationship to the world market. Naturally care should be taken to abstain from any form of national propaganda or furtherance of particular interests, and to keep to the international value of the schemes in question. What should be emphasised is general suggestions for international action.

5. NATIVE LABOUR. — Here too there are a number of points worthy of mention. The cinema, if it were improved, might contribute powerfully to the education of the natives and serve as a means for exchanges of

information between Colonial powers (films describing various aspects of colonisation, especially labour and hygiene).

6. GENERAL INTERNATIONAL INFORMATION.

— Lastly, we should like to draw attention to a field that is more restricted, but none the less seems to offer some interesting openings for new methods. What we have in mind is a sort of chronicle of international events.

To-day the stereotyped method of presenting the facts of international life is merely to film a meeting, the arrival or departure of delegates, etc.; the personal element is emphasised while the problems under discussion are wholly neglected. One can hardly help thinking that in the prevailing lack of confidence in international action, better use could have been made of cinematographic depiction with its direct appeal. For instance, on the occasion of a recent decision of the Governing Body of the International Labour Office to convene a conference to discuss ratification of the Mines Convention, a film on the lines we suggest would aim at a concrete portrayal of the social importance of the decision; but it is obvious that such a film would require concerted technical preparation.

Social data collected by the international institutions are also fraught with possibilities. A film on the channels of information of the International Labour Office (correspondents, requests for information, their nature, etc.) combining a strip cartoon with photographs and « animated » graphs (1) would certainly be interesting.

These few general ideas and suggestions, which we do not claim to be easily realisable, serve to support the contention that social policy and the work of the International Labour Office deserve a larger place at present in any scheme of educational film concerned with international life.

(1) Particularly charts with moving points of light: to illustrate certain economic developments it would be well to take as models quick motion films on the life of plants.

While we think that the official international institutions should take the greatest possible interest in such a scheme, it may seem neither possible nor desirable for them to assume direct responsibility for the production of the films. They should be closely associated in their preparation and their information sections might be in closer touch with the cinema world, and even employ veritable experts. It is only in this way that the systematic preparation of «reporting» would achieve rapid execution and effective presentation. It should be kept in mind that there are great possibilities in talking films, but only if the spoken word is given its appropriate pictorial setting.

The great private associations, both national and international, would also seem to have a part to play. As a rule they enjoy independence of appreciation and judgment, and can resort to forms of presentation not open to official institutions. In this domain they could undertake a vast campaign for the dissemination of information; in so doing they would certainly carry out the wishes of their members, and further their aim of keeping the general public better informed on the developments of international life. It may not be out of the question to contemplate agreements between these associations and the biggest cinematograph companies, whose co-operation is obviously an essential condition of success.

To recapitulate, it is by the collaboration of the three movements mentioned that progress seems possible towards a better understanding of the work of the International Labour Office and its powerful auxiliary, the educational film.

IV.

THE CINEMA AS A MEANS OF EDUCATION IN THE UTILISATION OF SPARE TIME

Everyone knows the part played by the cinema in the leisure of all classes of society. Some go so far as to think that this part is too large and prevents people from devot-

ing their leisure to loftier distractions or occupations. However this may be, there can be no question of running counter to a movement that certainly meets a real need. If it is regrettable that the cinema diverts people from other forms of amusements, would it not be the wisest thing, by reversing the course of events as it were, to attract attention to these other forms of amusement through the medium of the cinema itself.

At the present time, in all countries and in all classes of society, there is to be noticed an extremely powerful movement towards the better use of spare time. It is not a passing phase due to the fact that millions of persons have had to rack their brains for ways of filling in the enforced idleness of unemployment. It is to be foreseen, and recent events in the United States confirm the view, that spare time will increase. As Mr. Justin GODART puts it, we are entering upon an age of leisure. But if the civilised peoples are really entering upon an age of leisure, they ought to know how to make good use of their leisure. In countries where the question has taken definite shape, care is taken not only to furnish people with the means of utilising their leisure, but also to teach them how to use these means.

In this education in the use of spare time, the rôle of the cinema cannot be over-estimated. The various means of employing spare time are all «filmable» in a high degree: sport, travel, popular festivals, plays, etc. Films showing various forms of distractions (1) and how they can be brought within reach would not, like certain documentary films, have to contend against the indifference of the public.

The various problems arising here would have to be solved by the producers themselves. Without being versed in studio tech-

(1) A single example will suffice to show the form that this sort of advertising of spare-time occupations could take. At present in cinema theatres, fairly long extracts are shown of forthcoming programmes either in the theatre itself or in associated theatres. There would be no difficulty in replacing part of this often irksome advertising, by short films showing what pastimes could be followed in a given season and district.

nique, it is quite possible to point to certain forms of spare-time occupation that lend themselves readily to cinematographic propaganda.

As regards sport, the tendency at present is to give first place in the cinema news reels or documentary films to the more spectacular forms of sport. It seems hardly necessary to focus attention through the cinema on this sort of spectacle. The public is well enough informed of what goes on in big contests. It would be better to turn its attention to sports that are little known, or a least rarely indulged in and in particular to active participation rather than mere watching. We may take two characteristic examples. At the present time winter sports are growing in popularity, ski-ing in particular. Many people, however, are still held back by certain apprehensions: they are not perhaps aware that a little training is very helpful. It would be easy to imagine a film showing what is done in Switzerland, for example, to encourage ski-ing: preparatory classes indoors, beginners' courses on the snow, general courses in the mountains.

For some sports that are not practised in certain countries but are surprisingly popular in others, one need only mention baseball, which flourishes in the United States, and doubtless is capable of appealing to the masses in Europe.

As regards travel, there is no need to dwell on «grand tours», the preserve, for the time being at least, of the wealthy. The propaganda films in which we are interested, should concentrate on the organisation of travel for the masses. Film publicity should be given to activities of associations like the *Workers' Travel Association* in England, the *Agence Coop* in France, and *Escursionismo* in Italy. Doubtless too, films on the camping movement in the United States would interest audiences, and move them to inquire whether there were not similar movements in their own country or district. For young people, more particularly, films showing juvenile hostels organised in different countries, and the facilities they offer for

the utilisation of spare time would obviously be a powerful influence.

Popular arts take on manifold forms and not all are suitable for film propaganda; but a few that best lend themselves to filming could be drawn upon.

It is certainly possible to interest an audience in foreign costumes, which when first seen nearly always seem curious, not to say bizarre. But this is not enough: attention must be subtly drawn to local customs with a view to their revival. This applies especially to folk dances and local festivals, especially when there are occasions for wearing traditional costumes. The same remark obviously applies to choral associations and the theatre when, as is the case with Belgian sports associations, large numbers of performers take part.

Handicrafts are not so suitable for the cinema, but it is possible to conceive of attractive films showing the fashioning of objects of popular art. There might be illustrations, for example, of the application of the small electric motor to handwork.

There is, however, one domain in which the educational film should exert a powerful influence and that is housing. It could present the innovations in domestic organisation and show how they give added charm to family life, while promoting social life. And after covering the inside of the house the film could turn to the outside. Still too little is known of not only the allotment but also the children's playground, of which splendid examples exist in nearly all countries. Through the cinema all aspects of daily life, embellished by civic planning, could be made to interest the masses who have the examples before their eyes.

There remain certain aspects of spare-time occupations which do not seem to lend themselves at all to film propaganda.

V.

THE CINEMA AND INDUSTRIAL WORK

At first sight, except for problems of vocational training, it is not clear what form

relations between the cinema and industrial work might take.

For the moment the cinema seems mainly to be regarded as one of those laboratory instruments with which industry carries on its technical researches, and it is chiefly in this connection that it has attracted the attention of industrialists.

In 1912 American engineers, notably Gilbreth, introduced the cinema in their researches into manufacturing speeds and workers' movements. Workers were photographed against a background ruled up like graph paper so that their movement could be carefully studied from the photographs. This method obviously provides an accurate chart of greater value than observations merely noted down with watch in hand.

These methods were taken up later by various physiologists for studies of fatigue among certain machine operators. They have also been employed in the investigation of accidents and can show workers safe working methods. These various experiments and trials prove that cinematography investigations are means of achieving substantial improvements in working methods.

From the study of human labour, the cinema has been turned to the study of certain mechanical phenomena liable to occur in machine operation. Direct observation is easy when the machine parts are not running too fast, but it is impossible at high speeds. So the cinema has been called in to investigate the origin of certain vibration phenomena, for example, the «shimmy» of the front wheels of motor cars running above a certain speed. Reeling off a film slowly, even more than a study of the individual snapshots, has yielded some interesting discoveries in this domain.

These various investigations show that for the present industry tends to regard the cinema as a laboratory instrument, for apart from this, there is as yet nothing to show how it could be used in industrial processes, except perhaps to convey information of various kinds to the workers. For instance, some firms have shown films to their work-

ers to acquaint them with the origin of the products that they manufacture, and the processes to which they have already been subjected. Here the object is to give the workers a better idea of the tasks in which they share, and to stimulate their interest in them.

If it is remembered that in this domain cinematographic methods are only in their infancy, it will scarcely seem possible to predicate future developments. Recent developments following on the discovery of the photo-electric cell, or the introduction of strip cartoons, open out the prospects which for the present are the preserve of scientists.

There remains one use of the cinema which has long been associated with industry-advertising; but it is too well known and too common for it to be necessary to dwell upon its value.

It is obvious that not many people will be attracted to lectures or working-class universities by films showing what goes on at the one or the other. But conceivably an appeal might be made to the individual by showing in a practical but attractive way how to use libraries or museums. It must be realised that if relatively few people visit libraries or museums the reason is that the facilities offered are not well known. The person who reads sparingly is a little fearful of borrowing books from libraries, and the worker who does not know that for visits to museums there are associations existing for his special benefit is in a similar case.

It is also quite easy to picture workers being shown what is being done in the way of conducted excursions; visits to works, archaeological or botanical rambles, etc.

These few suggestions, given out by way of indication, show that not only film producers but also associations interested in different forms of recreation can lend valuable aid in these various domains. Would it not be better for travel agencies to devote part of their advertising outlay to small films of the kind suggested rather than invariably use the same forms of advertising, which by their very repetition fail to focus attention.

VI.

THE USE OF THE CINEMATOGRAPH IN VOCATIONAL GUIDANCE

I. THE CINEMA AND EDUCATION. — No one nows questions the utility of the cinema as an instrument of juvenile education. What is still discussed, and will doubtless continue to be discussed for some long time to come, is how to use this instrument and by what practical and technical means it can be made available to students, and what exactly its scope is.

The objects of the educational film, and it is these that distinguish it from the ordinary documentary film, should be:

- 1) To cultivate observation, will power and concentration;
- 2) To develop the habit of thinking;
- 3) To present an annotated recapitulation of knowledge gained from theory or practice;
- 4) In a word, to teach in a truthful, impartial and precise manner⁽¹⁾.

Only on these conditions will the film, a close ally of all other educational means, obey the fundamental principles of education, which should both form and enrich the mind. Failure to obey these principles would result in a dispersion of effort that, more than anything else, every enlightened person would wish to avoid. The most fervent advocate of the cinema in education will whole-heartedly accept these contentions, which were discussed at the European Conference on School Films held at Basle from 8 to 12 April 1927.

Although readily adaptable to the teaching of certain subjects (natural or applied science, geography, etc.) the cinema cannot be used, or only quite exceptionally, in others, such as one's mother tongue or mathematics. Others still call for particular circumspection and caution, a typical example being history, where any departure from the truth

in one direction or another might be highly dangerous.

From the practical standpoint, the educational film should merge into the general conditions prevailing in the school or class or in the method of teaching a given subject. There must, then, be special films for the purpose; it is not enough to use extracts from general films. Active research in this domain suggests that the ideal would be to found special film libraries either for each type of educational establishment (elementary secondary, high or trade schools) or for each subject and for each stage of a subject.

Every film of an educational character should be preceded or followed by an oral commentary by a competent person (school-master, professor, industrial adviser, etc.); otherwise the lesson might easily degenerate into recreation pure and simple and so defeat its object.

Collaboration of the various authorities concerned with specialised cinematographic educational experts in the preparation of educational films seems more and more indispensable.

Cinematographic technique must pay regard to the circumstances of school life that confront it with special problems difficult to solve at the present time (shortening of films, possible modification of the present standard width to allow of pictures appropriate to the size of the room and the shortness of school hours). In spite of these limitations the film must keep its essential qualities. Questions such as these, however, are for the specialist and need not be dealt upon here.

All general considerations of this kind must necessarily underlie any examination of two special questions bearing on the employment of films in vocational guidance and vocational training.

2. THE CINEMA AND VOCATIONAL GUIDANCE.

— The purpose of vocational guidance is at once educational, social and economic. The better to define the rôle of the cinema in this sphere, we may recall the definition of vocational guidance by Mr. Julien Fontègne, of which its author says that it has

(1) Most of these points were considered and developed in detail in reports submitted by the French Delegation to the European Conference on School Films.

been « consecrated by both national and international conferences »,

... « Occupational training has as its object advice to children leaving the elementary schools on the choice of a craft or trade suitable for their special tastes, dominating interests, physical, intellectual and artistic knowledge and moral and social aptitudes, due account being taken of the situation and wishes of the family and the state of the labour market (1) ».

The influence of vocational guidance will be exerted in the first place on the child and secondly on the people around it (parents, school-masters, employers, etc.).

It is mainly at the end of the compulsory school period that the influence will be exerted on the child, and at this time the aim will be to create in him an occupational atmosphere, to develop an occupational mentality, and to lay the foundations of an occupational ideal. This is what has been called « vocational pre-guidance ». Various means have been employed to this end, and the instructional film is a valuable aid. In some cases even it may be an apt corrective when, for example, there are visits to workshops, factories and other work places, or visits to museums or exhibitions organised for school children. These methods, sometimes of a dynamic sometimes of a static order, have long appeared to be the only ones capable of initiating school children into the ways of life and thus preparing them for the choice of an occupation; compared with them the film often seemed only a makeshift for the real thing, which always seemed preferable.

Today we realise that this kind of visit, although certainly worth continuing, is often insufficient in itself and in some cases difficult or even impossible to arrange. It also has inevitable drawbacks, and these are excellently portrayed by Mr. Fontègne in the article quoted. It would thus seem prefer-

able to combine these various methods of vocational pre-guidance as far as possible, leaving the educational film its due place.

The films used for this purpose, called by Mr. BENOÎT-LÉVY « first stage films » should according to him, « in the last school year cover in a systematic way the largest possible number of occupations, naturally with due regard to the state of the labour market. These occupations, carefully grouped, will give the young pupils about to leave school an idea of life that otherwise they could not have acquired » (1).

The craving to see something new and to be active and in movement, so strongly implanted in children and young persons, finds a common satisfaction in the film, which at the same time will be a valuable aid in teaching the history of human labour and its essential unity.

« Second stage vocational-guidance films », as Mr. BENOÎT-LÉVY calls them in the same report would, according to him, deal with one trade apiece, entering rather more fully into detail but without going so far as technical educational films (1). In these films vocational guidance proper should not stop at describing a particular trade; it should show workers at their job, initiate young people in search of an occupation by showing them the uses of certain substances or the handling of certain tools. The results so far achieved along these lines in certain countries seem to promise a brilliant future for vocational guidance films (2). They should, of course, be impartial and show both the pros and the cons of the various careers ».

This brings us to occupational monographs which should, as it were, present as faithful as possible a portrait of the occupation. The film would be no more than a pictorial supplement to the printed matter. Conceived on

(1) JULIEN FONTÈGNE. *The Use of the Cinema in Occupational Instruction*. International Review of Educational Cinematography, Rome, March 1933, p. 177.

(1) Rapport général présenté par M. Jean BENOÎT-LÉVY à la 6^{ème} Commission du Congrès international de l'enseignement technique, Paris, septembre 1931, compte rendu des Travaux du Congrès, 1^{er} volume, p. 481.

(1) Op. cit., p. 482.

(2) For further details see Mr. BENOÎT-LÉVY's Report.

these lines films will be an instrument of propaganda in the hands of parents, schoolmasters and all other servants of vocational guidance.

If it is to be a good illustrated monograph on vocational guidance, the film should as far as possible furnish the information normally to be expected from any printed monograph; according to Mr. FONTÈGNE (3) it should cover the following points:

- 1) the purpose of the trade;
- 2) the conditions in which it is carried on;
- 3) the knowledge that it calls for if apprenticeship is to bear good fruit;
- 4) the physical, intellectual, moral, artistic and social qualifications required;
- 5) the economic conditions attaching to the preparatory period;
- 6) industrial accidents and occupational diseases;
- 7) the future of the trade or occupation;
- 8) the possibilities of advancement open to the worker.

The examples quoted by Mr. Fontègne in the article mentioned are among the most successful of their kind.

If synthetic, not too long, with the essentials shown in slow motion, the vocational guidance film, general or special, could in addition, and according to the use to which it is put, serve to explain certain economic and social conceptions or needs (e. g. advertising of occupations little known or experiencing a shortage of labour, etc.).

3. THE CINEMA AND VOCATIONAL TRAINING.

— All the considerations advanced in connection with films on vocational training would seem to apply to films on vocational guidance or technical education. But in these domains the film would be essentially a sort of complementary course like drawing in certain professions. The practice of the trade, handling tools, various phases in the manufacture of an article, these are all matters that the film can bring home to the pupil.

Slow motion will play a particularly important part.

Widely employed everywhere, films for vocational training and technical education have too long been useful and indeed indispensable supplements to the first-hand knowledge gained from visits to workplaces — which they by no means set out to replace — for it to be necessary to dwell upon them here. Their future is assured. Nevertheless, for both these classes of film as for any other really educational film there are certain conditions to be fulfilled, which can be summarised as follows:

a) Collaboration between cinematograph experts and teachers, technicians and those in the trade. This collaboration will be particularly necessary in the case of technical educational films.

b) Methods of presentation must be strictly adapted to needs:

1) The vocational pre-guidance or vocational guidance film should be shown at school and in post-scholastic courses;

2) the technical educational film should only be shown at school.

c) Sound films seem only suitable for vocational guidance.

d) Every genuinely educational film requires to be commented upon, especially the vocational-guidance film, which at bottom is only a means of illustrating a lesson and should be closely related to it.

e) A condition which seems very important in the production of educational films (whether vocational-guidance or vocational-training films) and in their proper use is mentioned by Mr. BENOÎT-LÉVY in the following terms:

« There is need for a national organisation which would draw up plans for film production to the requirements of vocational guidance and technical education. The chief task of this organisation, composed of technicians and teachers, would be to select the subject matter of the films to be produced, or to edit that of existing films (1) ».

(3) *Op. cit.*, pp. 193-194.

(1) *Op. cit.*, p. 484.

The conditions in which vocational guidance and vocational training films may render valuable services in the national sphere were fully gone into by a special committee of the International Congress for Technical education, which met at Paris in September 1931. This Committee, of which Mr. BENOÎT-LÉVY was the General Reporter and at which numerous national reports were presented, expressed its views in the following resolution which was adopted unanimously by the full Congress and may be quoted here by way of conclusion:

« The Congress recommends:

« 1) That in each country should be set up a centralising body, a sort of National Cinema Institute in the domain of technical education and vocational guidance and having the following duties:

« a) To see what vocational guidance and technical educational films are required, to keep up to date a catalogue of all such films already in circulation, and to arrange for their judicious distribution;

« b) To collaborate in the preparation of films with due regard to the continuous progress of the technique of teaching and of cinematography;

« c) To set up a permanent committee of psychological, statistical, etc., research with a view to verifying the results obtained and constantly improving this new method of teaching;

« 2) That use should be made of the Permanent Cinematographic Centre for Vocational Guidance and Technical Education attached to the League of Nations International Institute of Educational Cinematography, Rome, whose primary task is to centralise documentary material on existing films, and which would serve as a clearing house for national institutions and facilitate international collaboration;

« 3) That in addition to the existing size of 35 mm. a sub-standard size should be adopted to facilitate the popularisation of films;

« 4) That Governments should take all the necessary steps to ensure that only non-

inflammable film bases are used in educational establishments or educational meetings;

« 5) That Governments should encourage as far as lies in their power the showing of vocational guidance or technical educational films approved by the national bodies, in particular by lightening their fiscal dues (1) ».

VII

THE CINEMA AND THE PROTECTION OF MOTHERHOOD AND CHILDHOOD

With a view to improving the protection of maternity, cinematographic education might be directed towards a twofold end:

a) showing the injuries which certain sorts of work entail upon the health of mother and infant;

b) making known the social machinery created for the welfare of the working mother and her child.

A) The first of these tasks is a work of social prevention specialised along certain definite lines. The production of films in this sphere certainly requires the collaboration of doctors possessing ripe experience in industrial hygiene and gynaecology. Without in any way analysing the scientific data that these films would aim at disseminating, it may be said that it would be well to have films showing, on the one hand, factors that, even in the young girl, may in the long run endanger maternity; and, on the other, the dangers of pregnancy itself.

Among the first of these risks may be mentioned bodily injuries that sometimes develop slowly throughout the occupational life of the adolescent, just at the age when long spells in abnormal positions, as are required in certain work, or the constant carrying of heavy loads, most easily injure growing organs, e. g., deformation of the pelvis or displacement of internal organs. The cinema can easily bring these dangers to notice by showing the occupations in which they arise. Sometimes slow motion

(1) Proceedings of the Congress, Vol. I, pp. 56-86.

films, by singling out different phases, will show more clearly the abnormal features of certain constantly repeated occupational movements or certain attitudes imposed by the work, and how they can impair the development of a growing subject. Schematic representation could be employed to show deformities of the skeleton or internal organs not ordinarily visible and, by contrasting the deformed with the normal state, make it easy to understand how deformities may adversely affect childbearing. These methods have been successfully employed for sex instruction and campaigns against venereal diseases. They should be suitably adapted for a campaign against the risks that certain forms of industrial work entail for maternity.

This preventive campaign would be all the more useful because in many cases by merely slightly modifying working methods it would be easy to attenuate, or even eliminate, the danger inherent in certain work: the fitting of a new device on a machine might save the woman operating it from having to stand, or sit, or stoop all day; a more rational organisation of the workshop might do away with the carrying of loads, etc., etc.

Thus, by bringing home in a striking manner the serious drawbacks of certain methods of work that are liable to injure young girls in such a way as to impair motherhood, the film would unquestionably make for a reform of these methods. The remoteness of the danger and the slow if relentless attack on the system are liable to conceal the truth, and consequently it is all the more desirable to utter a timely warning to working women and to those responsible for this aspect of their health.

But other risks also are run by working women during pregnancy itself; these are more apparent. Nevertheless, even at this time ignorance is a source of injury to the health of both mother and child. Here again the method of photographs combined with schematic explanations can bring out the movements, positions and pressures liable to injure them. It would be easy in this way

to prove the great need for the general introduction of medical supervision of expectant mothers. This is compulsory in some countries and in others there are some interesting examples due to private initiative. For instance, the transfer of the expectant mother from her ordinary work to work that is suited to her condition might avoid much suffering and perhaps, if effected in good time, save an infant life. Photographic analysis of the heavy work of many women workers would demonstrate the great value of the provision in the Washington Convention establishing six weeks' rest before and six weeks' after childbirth.

B) The second part of the programme of cinematographic education that could be imagined in this domain is certainly more attractive. It is always painful to lay suffering bare, but there is infinite felicity in depicting the benefits of institutions that help to surround the child's entry into the world with happiness. There is material for charming pictures in all that is being done to this end in the different countries.

First, the institutions attached to the factory: the arrival of the young mother at the factory nursery with her precious burden; the reception of the babies by nurses or social assistants who take care of them in ideally hygienic surroundings, while the mother is working; the various incidents of the baby's day in the nursery where he receives every attention from experienced specialists — the daily bath, the weekly weighing, and rational food at fixed hours if the mother herself does not nurse him between spells of work; the dormitory full of cradles in orderly rows where, changed into fresh linen on their arrival, the mites sleep peacefully; the playroom where they romp protected from accidents by suitable equipment. There are also children's playgrounds or places where children are minded after school hours until their mothers return home from work, so that they are not exposed to all the dangers of running the streets. Then there are pre-natal or infant consulting dispensaries; mothers' dining

rooms where at a small cost expectant or nursing mothers who would not have time to cook a nourishing dinner can obtain wholesome food that they need. Again, there are infant-care courses of all kinds: some attached to the school, others to the factory or the dispensary; permanent courses in the large towns, itinerant courses in the country. These latter are sometimes facilitated by scientifically equipped motor-vans and provide lessons in maternal hygiene for future mothers, adapted in each individual case to their living conditions. The main object is to deliver a direct attack on bad local habits in diet or deeply rooted antihygienic prejudices. The cinema can not only spread the news of this education in maternal hygiene and infant care and thus stimulate other districts to follow a good example; it can itself be the means of education in infant care, and the most ubiquitous of all.

And it would indeed not be an ungrateful task for a cinematographist to film these scenes of childhood made radiant and joyous by devoted care; with mothers happy, or at least completely at ease, in the security afforded them by well-organised social assistance; future mothers intent on the great duty awaiting them, and preparing for it with a devotion fortified by the knowledge that there will be no lack of the means of fulfilment.

C) The cinema may also employ its varied resources to disseminate, in the same way, the principle of the protection of working girls. Much as before, its purpose will be to make known the dangers of various kinds that beset the child in its working life, and threaten the healthy development of its adolescence; and to make known also the necessary means of protection.

One of the first dangers to avoid in childhood is premature employment; it would be easy to show by films the physical, and in some cases the moral harm that may be done to children of tender age by various classes of work in industry, on the sea, in the fields, in shops, in offi-

ces, on the stage, in itinerant occupation, etc. The injuries here in question may take on very different forms: some may result in deformities in a body not yet robust — this is a feature of many manual occupations — others contaminate the mind not yet sufficiently stable to withstand bad examples, or at least to save itself from defilement by premature contact with adult vice or passion. The occupational life of the young hotel page or child hawker is fraught with the dangers of the second class.

After showing the need for fixing the minimum age for admission to work sufficiently high to avoid the most serious of these dangers, the cinema might give an idea of the precautions that should continue to surround the child at work until manhood or womanhood; regular medical supervision, reasonable hours of work, and jobs that are particularly unhealthy, dangerous or trying. It could also show how, for the greater good of society and the individual alike, the occupation should be suited to the aptitudes of the individual; and how in adolescence, through vocational guidance well-conceived and generally applied, every endeavour should be made to find everyone the job for which he or she is best fitted.

VIII.

THE CINEMA AND INDUSTRIAL MEDICINE

The service that the cinema renders hygiene may be instanced by the following types of film:

a) *Purely scientific films*: The difficulties of production are easily overcome by modern technique. These films are usually short but very interesting. They appeal to the public because they take it into a world that is almost, if not entirely, unknown.

b) *Films for auxiliary medical staff or for schools*: Here the aim is quite a special one, and these films are extremely useful for students and medical specialists.

c) *Films for the public*: With these, the aim is difficult to attain and, to judge from present experience, attempts have not met with great success. In fact, the number of films in this class is very limited, and technically they are not always above criticism. For the most part they are propaganda films dealing with social diseases, above all tuberculosis, alcoholism and venereal diseases. Such films should constitute lessons on specific points, and should be prepared with the same care and the same scientific accuracy as any other lesson or textbook.

But the actual teaching which is the aim of such films should be wrapped up in an interesting or amusing story. Herein lies their great difficulty, and it has not been overcome despite the most cordial and complete understanding between doctor and technician.

The most serious handicap is that the audience often compares these films with others wholly within the theatrical domain. To get over this, the practical part is often sacrificed to the story, and unfortunately the story is not always free from glaring scientific errors.

Collaboration between the different interests capable of contributing to the complete success of the undertaking is essential in the production of any film of an educational character. It is in fact the only means of ensuring a proper balance between the various parts of the film.

Several other facts explain why the propaganda film has not attained its end, why the technical side and the details detract from the medical and hygienic data — certainly the most difficult to handle — why, in fact, we do not share the opinion of those who think that industrial pathology lends itself very well to every aspect of cinematographic propaganda.

The reasons are very simple: the cultural film on social diseases and, to a greater extent, the film on occupational diseases,

shows people suffering from a disease: paralysis, palsy, gout or what not. Here, paradoxical though it may seem at first sight, the elements are static and not cinematographic. We shall always be shown, for example, a doctor auscultating a patient, microscopic examinations, various clinical researches in connection with diagnosis, the part of the body affected, etc. And this is all. Rarely will the film deal with any characteristic lesion. An emaciated, sickly, cachectic person may be suffering from tuberculosis, serious lead poisoning, or ankylostomiasis. Paralysis of an arm or a hand may be due to widely different causes.

It is true that medical propaganda could be supplemented by notions of hygiene, and it could be shown, for example, how dusts or toxic gases can be eliminated. But for this, one can only show parts of factories or places where the installations in question are working, without offering the « movement » essential to the success of the film. Here again the subject is static, and a spoken commentary must supply many details that the film can only give inadequately or not at all.

Further, films on first aid in the metallurgical industry, the prevention of certain accidents in agriculture, individual hygiene for the worker's welfare in the factory, for examples, are doubtless very interesting for those dealing with problems of these kinds, but they are not very attractive for the general public, and especially for the persons directly concerned.

In conclusion, it must be said that as yet there do not seem to be any propaganda films on social diseases or industrial or working-class hygiene that could be recommended as models. Most films on these topics have drawbacks and defects so serious that it would be better not to use them at all. Consequently any practical suggestion for the production of better films would be welcome.

THE CINEMA IN VOCATIONAL GUIDANCE

BY

Professor Luc

GENERAL DIRECTOR OF TECHNICAL TEACHING AT THE FRENCH MINISTRY OF NATIONAL EDUCATION.

It was thought advisable and urgent, after the war, to direct the attentions of our children towards specialized crafts and trades. It became, in consequence, necessary to examine carefully the most suitable conditions for inducing the child to show his inclinations for any special trade or kind of work. We thus arrived at what is known as vocational guidance.

We are dealing with a comparatively new science which it would be impossible to examine properly within the limits of this report. Those interested in the matter can have any supplementary information from the Institute for Vocational Guidance (29 Rue d'Ulm, Paris) or from the article on the subject by M. Fontègne, General Inspector of Technical teaching and co-director of the Institute in question. The article which appeared in the March 1933 number of the Review of the I.I.E.C. gives a fairly complete picture of what the motion picture can do for vocational guidance.

Ever since the creation of a vocational guidance service, the objects of the bureau of Technical Teaching have been twofold. It was sought, on the one hand, to encourage the children to learn a proper trade or craft rather than yield to the attraction of immediate earnings which inevitably result in subsequent inefficiency. It was also desired that the child should be steered towards a trade or craft which seemed best suited to his possibilities.

We must take into account: (1) the physical and psychical capacities of the child and (2) his natural preferences.

The first of these questions is undoubtedly

connected with medicine, while the second means a work of education in the case of a child who is not only ignorant of his possibilities, but even of his likes and dislikes. In order to choose a craft and know its possibilities, one must know several crafts. Visits to factories, etc. may seem useful, but they are surrounded with difficulties and drawbacks such as the material impossibility of taking a large number of children to factories and workshops, etc. at the same time, the danger for the children in approaching too close to the machines, the difficulty of explaining their working and so on. It is chiefly for reasons such as these that the management of the Vocational Guidance Service has suggested the use of the motion picture.

If the screen is only a reproduction of reality, it possesses advantages over the latter from the demonstrative point of view. The contrast of black and white revealed on the screen shows the objects projected enlarged, and renders them more easily understood. In this way many details are observed which would otherwise pass unnoticed.

The slow motion projector, moreover, can split a movement up and reveal it in a way that nothing else can. Animated cartoons can break up the most complicated movements, and recompose them without arresting the motion. The cinema can therefore well assist unaided in defining and helping one to choose a craft or trade, for it should be remembered that vocational guidance does not set out to teach a trade but only to give an idea and illustration of it. The child gets a general idea from the projection, and can

work out for himself the details of the craft towards which he feels drawn.

The foregoing explains why we have arrived at the creation of a central organization for the application of vocational guidance by means of the film.

By a decree of May 14, 1923, modified by a later decree of March 1, 1930, a special commission for the cinema as applied to vocational guidance was instituted in the General Bureau for Technical Teaching attached to the ministry. This commission has control over the Central Film Repository for Vocational Guidance (7 Rue Robert Estienne, Paris). It is entrusted with the following work:

(1) Collaboration in a general way with the administration in the connection which the latter has with the Central Film Repository and the Vocational Guidance Bureau; also with various courses of this kind and schools run along these lines;

The Section for examining Pedagogic Apparatus, which is composed of technicians and pedagogues, will examine apparatus submitted to it. The reports and decisions of this commission are to be referred to the teaching world and the various ministries.

(3) In the matter of films, the commission should make contact with the various technical groups and assist manufacturers of projectors, etc., to secure the production of pictures considered necessary by the Bureau of Technical Teaching. Such films should be examined, reported on, and where alterations or modifications are suggested, such should be carried out. Commission to have authority also to recommend purchase or rejection of pictures.

Thanks to this organization the following films were prepared and made.

Arts and Crafts. Wood-carving; chair-making; working in iron; art foundries, ceramics; technique of ceramics, a great ceramic

worker, Delaherche; painting; book manufacture.

Manual Crafts. (Boys): Cart and carriage works; carpentering; metal-turning; lead working; blacksmith's work; how to become an artisan smith. (*Girls and Women*): Artificial flowers; embroidery; linen and laundry work, an unknown craft; ironing; minor crafts for girls.

Technical Schools. Technical schools such as the Colbert Institute at Tourcoing.

Various. The poetry of labour; the human machine; the rural artisan.

Propaganda. All these films in 16 copies have been consigned for free lending to the 14 centres near the most important inspectorates.

They were accompanied by detailed explanation in five separate parts, that is, a short prologue, the list of sub-titles, a comment on the picture, general indications of the subject matter dealt with, and an indication of the types of spectators for whom the film was made. These are all useful points for the teacher.

The management of these film repositories has been entrusted officially to the Central Film Repository Bureau.

Meetings or classes for vocational guidance are organized regularly in each of these centres with the assistance of the Vocation Bureau and the Employers' and Workmen's Syndicates. Such meetings are repeated every year in a large number of villages, under the control of departmental inspectors of Technical Teaching, the directors of the Bureau of Vocational Guidance and the Vocational Guidance Councils.

These meetings take place on Thursday mornings in Paris in the Recamier Cinema, and are intended for boys, girls and young men and women about to leave school. They have enjoyed a gradually increasing success, and the students and frequenters appreciate their value and importance.

THE VOCATIONAL GUIDANCE FILM

BY

Julien Fontègne

INSPECTOR GENERAL OF TECHNICAL TRAINING, CO-DIRECTOR OF THE NATIONAL INSTITUTE OF VOCATIONAL GUIDANCE IN PARIS.

IN this brief report we shall limit ourselves to summarizing the ideas on the vocational guidance film which we have already had occasion to set forth at national congresses such as those at Lille and Paris, at international congresses like that of Basle or in national or international reviews of the type of *Information Professionnelle*, *Ciné-Document* or the *Review* of the I.I.E.C. of Rome.

Vocational Guidance. We must define this. The definition which seems up to now to have won the largest share of approval is the following « Vocational guidance aims at advising an individual in the choice of a trade or craft which is suited to his desires and particular interests, and accords with his knowledge and aptitudes whether physical, intellectual, moral or artistic; due account always to be taken of the family situation of the individual, and the state of the labour market ».

This definition brings in its train two distinct questions: that of the crafts available for individual activity and the type of the individual who will have to make a choice among such crafts or trades.

Choice of Trade. A simple reading of the literature on the subject will supply a superficial knowledge of the various trades and crafts available, while visits to factories, workshops, farms and offices, etc. will widen this knowledge. Museums, exhibitions and technical exhibitions especially should be visited, and conversations with experts and men and women

engaged in the trades under consideration will prove extremely helpful.

At the same time, this is not enough. There is always a lack of life in these books dealing with crafts and trades. The young person does not always feel, as he ought, the enthusiasm which a great writer is conscious of when he exalts the glory of work. Visits to factories, etc., though agreeable, are not as profitable as one could wish, while the museums sometimes prove sterile in suggestions and the experts' talks are often superficial.

Can we not organize a regular methodical teaching and illustration of crafts by means of the motion picture? What is a craft but a collection of gestures and actions directed towards a given aim? Could not the film represent all these motions and gestures in one whole?

If this were true, would it not be enough to split up a craft, decompose it as it were, into a certain number of technical movements and then reassemble these movements in a synthesis? This sounds easier than it really is and was tried some years ago, but was abandoned. It is not easy to say whether there is much more value in a series of technical movements than in a collection of printed lines indicating the motions used in practising a certain craft, or in a lecture on any given trade.

The important thing is that the child or young person, after having left his elementary school, is able to obtain some notions:

a) on the work which he may have to do one day, sooner or later;

b) on the tools, utensils and objects necessary for exercising such craft or trade;

c) on the way in which he must use such tools or utensils, etc.;

d) on the knowledge it is advisable for him to acquire in this connection;

e) on the special aptitudes required for the craft or trade decided upon.

A good motion picture is able to provide all these indications. The experience of the men handling French vocational guidance films shows that, according to the reports of the General Direction for Technical Teaching, such films can be of the greatest utility. Examples are to be noted among the following pictures: carriage and cart factory in operation; artistic iron utensils and their manufacture; the common motions of a mason; the worth of good Vocational Guidance and so on.

The vocational guidance film exists then, and it is the task of an international congress such as that which took place this year in Rome to modify it and lay down its definite characteristics.

All those persons who have had occasion to take a practical interest in the technical instruction film have been able to observe that, at the moment of having to choose a career, many children appeared undecided, if not actually indifferent.

They do not, as a rule, show any special tendencies, but rather a complete apathy for work in general, a profound aversion for manual labour. All the lessons in the world have not really produced any effect on them. The illustrations showing the different future in store for the trained and untrained worker have made but little impression on them, while all the exalted phrases on the nobility of labour have left them completely cold.

Must we then consider their intelligence closed to any of the ideas on the various forms of work? Have they no interest in the value of action and independence in life?

Film for Pre-vocational Guidance.

This leads us to speak of those pictures which might be described as being pre-vocational guidance films.

The object of such films is to endeavour to instil in the child's mind the first ideas of technical training and vocational guidance. Films of this kind exist today, and we may find them among those pictures which show the life and labours of fishermen, the flowering meadows and fields where the market-gardeners work, the miners' hard life wringing the ore from the earth, and the refined artistic creations of the French artisans. Nor should we forget the tremendous tumultuous life of our modern factories and workshops.

It may be argued that pictures of this kind are not, strictly speaking, vocational guidance films at all. Nevertheless, it is sufficient if they can arouse the interest of the young people in the various forms of manual labour.

We have used the expression technical attitude or state of mind. We cannot expect to create in the child in his early years a workman's point of view. The thing to be aimed at in films of this kind, whether documentary or otherwise, is to convince the young person that a man is of worth for what he can do, and not for what he possesses. It is a good idea in vocational guidance work to give an illustration of the workman returning to his happy home to enjoy the pleasures of family life after his day's work. Bernard Palissy at work can provide an admirable model of this kind.

Without seeking to stress this point overmuch, it can be argued that our film repositories in France have enough pictures of this kind to meet all the needs of the case.

Utilization of the Vocational Guidance Film.

We may allow ourselves to repeat once again that vocational guidance films should be shown in the schools. Little accompanying comment is required, lengthy explanations are not desirable, and advice suggestions, though well meant and intended to supply indispensable illustration of the picture, often enough do little more than waste everybody's time. One might even go so far as to say it would be advisable to eliminate all comment from films of this kind. The child will have heard

talk of several kinds of trade and craft during his school hours; he will have, often enough, used the tools or implements of one or more of such crafts, and the choice is up to him in the last analysis.

The best thing to do is to leave him alone to make his choice, and not to worry him, not to distract his developing interests, his budding enthusiasms, not to dissuade him from likes or dislikes, but to leave him free with the latent and mysterious qualities of his own spirit. This is the careful and delicate line we must follow when a child comes to ask us advice on the question of choosing a trade or craft. We should confine our advice to repeating for the child a film or more than one film in which he has shown a decided interest.

With what type of film ought we to begin the work of vocational guidance? Just as it would be unadvisable to go into detail over the various operations of a specific trade without indicating the general lines of it to a student, so it is not the case to stress the details of any particular craft or trade without having previously shown the young person various and alternative trades or crafts. The first vocational guidance film to be shown should be one on general lines, showing a number of crafts or trades for boys and a similar or smaller number of tasks for girls.

There are plenty of such films, or at least a fair number of them. A request to the General Direction of Technical Training will bring forth what is required along these lines. The *synthetic films* of A. Lomont and

Jean Benoît-Lévy may be used to render the first phase of vocational guidance profitable.

When the young person or child has made his or her choice among the various trades or crafts shown him, then it will be advisable to project for him or them films dealing with these special kinds of work. Films of this type can be found in the general catalogues of film-producing firms, though often enough the mere title will not indicate the educational value of the film.

It should also be noted that romance or theatrical films may have considerable value for our purpose. Films of this kind can show work being done — along the lines under examination — by children of the same age as the candidates undergoing vocational guidance. Such films can show how the work is actually carried out in the real surroundings of everyday life in all its various aspects. This without neglecting the moral aspect of all forms of labour.

We are not unaware of the numerous objections which have been raised against the vocational guidance film. The difficulty of accompanying children to workshops and factories has lost much of its value since the coming of the sound film which can reproduce all the factory and machine sounds and noises, and can even give us the very atmosphere of the factory.

In any event, it is certain that the vocational guidance film should be strictly technical and cine-technical, and should take full account of the nature of children and the complex forms of modern technical labour.

ERRATUM. - The study « Cinema and Teaching », which appeared in our September number, was erroneously attributed to M. Henri Duvillard, teacher at Zürich. The article was written by « M. Emmanuel Duvillard », Director of Schools at Geneva.

UTILIZING THE CINEMA FOR TEACHING ABNORMAL CHILDREN

BY

Professor M. Prudhommeau

Before entering into the heart of our subject, it may be as well to observe that the law of 1909 which governs the teaching of abnormal children in France has given rise to two sorts of schools: one of «perfectioning» or improvement attached to the government schools and an «autonomous» system for in-boarders and collegians. The latter type gives greater opportunity for a lengthy study of the pupils, for they are instructed in an art or craft. The conditions of education in the two kinds of school differ somewhat. Our own experience was gained in a school of «improvement», which often contained more than the 20 pupils contemplated by law and comprised all types of mental deficient and backward children. This lack of homogeneity among the pupils tends to aggravate the social evil and renders the experiment difficult.

One of the first observations which may surprise some people is that the collective reactions of abnormal children which are full of interest and instruction are the same as those produced on normal children in the same conditions. This was discovered in the course of experiments made some years ago among pupils of the elementary and middle schools and, in our opinion, has its instructive value for the teacher of normal children.

a) Methodes to Be Employed in Film Teaching.

1) It is an error to believe that the film is educational in itself. It is the master who teaches and educates.

2) The film ought to be for the child a

continually fresh source of observation: a door that is opened for him on *life* and not on a stage.

The abnormal child's faculties of understanding and perception are very limited. The teacher must take care to avoid errors which might be unimportant for normal children who would themselves be capable of supplying the necessary correction, but against which abnormal students would have no proper defence.

On these children's *psyche* the motion picture produces a violent effect that is much stronger than that deriving from any other teaching means. We must take constant care to avoid errors of interpretation, which might lead to a continuous series of errors with possible grave results. These errors must be noticed and corrected in time. Once they are firmly impressed on the spirit of these children, it will prove difficult to eradicate them. In the case of children of this kind, a mistake which has exercised a prolonged influence can provoke voluntary acts which, through the effect of reaction, strengthen the mistake and implant it firmly in the mind.

Before every projection, then, we must assure ourselves that the children are in a state to understand — as far as it is possible for them — what they will see on the screen.

Here are two other not less important rules. The cinema which *always* has a great attraction for children, should form part of their scholastic life. The teacher's mastery over the film must, however, be assured.

This is *necessary*. We must also go so far as to allow the children to understand that the film is not always a representation of reality and that certain films can be a source of error. The children should be taught to appeal to the master for explanations when there is some point in the picture which they do not understand.

The teacher's first task is one rather of preparation which he must carry out before proceeding to the strictly pedagogical action. The success or insuccess of the use of the film as a pedagogic educational means will depend on such preparation. Let us now turn to the precautions of a practical nature.

The projection ought not to be a cause of excitement for the abnormal child, and everything which tends to distract the child's attention or make him or her hypersensitive and nervous should be avoided. Curiosity and attention are at once aroused as the announcement is made that «there are going to be pictures». It is wise to take advantage of this promising state of mind and cultivate it without provoking dangerous reactions. The lesson completed with the use of a film ought to be the common routine and not an exceptional performance. If we arrive at this state, we shall find that the film lesson takes place in a calm atmosphere, and the collaboration between teacher and pupils becomes easier and more profitable.

The projection should be preceded by a lesson. We might say that the word *lesson* seems to us out of place in speaking of abnormal children. But this preparation and collaboration with the scholars is useful since it allows us to approach our subject while arousing their interest and curiosity.

This will sometimes be a sort of safe guide for directing the children's interest to the projection. The first essential condition is that the teachers should know their films. The teacher may project the film for his own benefit previously, and in order to make a detailed study of it, read a detailed report and description of it.

Projections in School Premises or in Special Halls?

Our answer, which may surprise some educationists is: either the one or the other. Our experience has led us to include that in the best circumstances it is sufficient to give the projection in the class-room. This does away with useless moving about from one room to another, which causes loss of time and upsets the rhythm of the work. At the same time one should be able to dispose of a proper hall fitted out with all the requisites mentioned in this article. The school ought also to have two quite different motion picture projectors.

The size of the screen and the rhythm of the projection have their effect in the matter of the abnormal child's capacity for understanding. In order that the film may become a source of lively observations, it will be necessary:

- 1) to provide the best possible conditions for the child to make its observations;
- 2) give the child a true impression, so that it can establish a current relation between what it has seen and reality.

Our experience has led us to believe that the size of the screen should vary according to the results desired. For example, in the case of a lesson on the exercise of a certain trade or craft, or on the life of certain animals, we have come to the conclusion that, in the majority of cases, projection on a small screen, in an ordinary room, with the children placed quite close to the screen gives the best results. Having begun with a 1.50 metre screen, a screen with the dimensions of m. 0.70 seems to us the smallest size possible. As a result of further experience, we have decided that a 60 centimetre screen may be big enough in a scholastic hall. The details are still sufficiently visible for the pupils who must be close to the canvas, and the eye can observe, *without strain*, the ensemble of the picture.

For showing geographical pictures meant to reveal to abnormal children the beauties of nature, I have obtained encouraging results by projecting the picture against the

whole back wall of the class-room. In this case, it is necessary to use a fitted out hall, and one wants a special apparatus or at any rate a projector with a short focal length lens. This method gives an extraordinary effect of reality, provided that there are not persons shown in close-up or in the foreground appearing larger than life size. If one screens the film «A Storm at Penmarch» for the children in a dark room, it is not unusual to see them making motions of dodging the huge waves, while some of them show sign of actual fear. This fact shows us the intensity of the impressions which children receive from films, and warns us to take precautions with hypersensitive temperaments, remembering that sensitiveness is always increased by the darkness of the room. In some of the railway travel pictures, such as «From Chamounix to Montanvers», one gets the actual impression of travelling in a train for nothing is lacking not even to the sensation of relief obtained by a special close-up effect that constantly changes.

The back wall seems a huge bay open on nature.

In pictures where there are a number of close-ups, it is better not to exaggerate the degree of enlargement to avoid any risk of falsifying the children's capacity for observation. A screen measuring two metres and a half seems to us to provide the most favourable conditions for obtaining verisimilitude. The work of the miner in the film «Loos Coal Mine», projected in this way, gives a curious effect of reality in a dark room. Another important condition which must always be taken into consideration is the influence of the light in the room. To sum the matter up, the projection should be made either in the class-room or in a special hall according to the circumstances.

Projections before or after the Lesson?

It is sometimes necessary for the projection to be made before the lesson. This happens with films seen outside the class-room that can occasionally

be used to help the effect of the lesson. The teacher should coordinate the scattered images and ideas supplied by the film vision and correct them, lest their falsity vitiates the children's judgment. This ought to be the special case of the master and he should regard films as possible adjuncts for lesson aids for his pupils. In general, however, in the case of abnormal children, it is our opinion, that both from the pedagogic point of view as well as the psychological one, one should *prepare* the children for the projection so as to stimulate their curiosity. This is an essential condition for fixing their attention, holding their interest, and preventing undue excitement.

In this way one can obtain collaboration between teacher and pupils, provided the former has a perfect knowledge of the film and uses explanatory notes to illustrate it.

Continuous projections, or short pictures detached from the teacher's explanations; later, use of explanatory notes.

The projection will, according to the circumstances, be continuous or interrupted by comment. Everything depends on the nature of the film, the result aimed at, and the reactions of the children.

The teacher of «improvement» classes is fortunate in having no other object than education and the instruction of his pupils to aim at. He has not to bother about examinations and their result. This gives him plenty of latitude in the choice of his means of teaching and the subjects to be dealt with. The level of his classes, and the educational purpose he is pursuing will be clear guides for him when he wants to present a certain film or is considering rejecting another. We should not forget that a well chosen film may be a documentary capable only of illustrating a part of the lesson.

Using short pictures, with everything likely to disturb the attention cut out, the child ought to be able to support, without interruption or diminishing interest, the projection of an entire film. Interruptions split the spectacle up and falsify the mental image which the child should have of

the film. Take the case of the picture showing a short railway trip, the film «From Chamounix to Montenvers», already mentioned in this report. The action takes place in a homogeneous setting, and the action proceeds with the rapidity of a train in motion; the camera-man having actually made the picture from a train. The value of this film would be rendered almost nil, and the effect of the train journey destroyed if the picture were stopped at intervals for explanations. The same remark applies to other films representing spectacles or natural phenomena; such as seas, volcanoes, cascades, etc. The film «Storm at Penmarch», for example, will give a fine impression of the force of the waves, provided the projection is not stopped at any time.

On the other hand, it is useful sometimes to arrest the projection to explain some of the sub-titles. It is not to be denied, however, that sub-titles interrupt the action, and if it is sometimes useful to give an explanation between two different films, it produces a bad effect to introduce sub-titles when the action does not demand them. The only result is to destroy the picture's natural rhythm, distract the attention and produce a bad impression. Children are accustomed to exchange their impressions and opinions during the running off of comment and sub-titles, and well planned shows keep them quiet and in order. The greater the silence, the better the impression made by the film.

We are in favour of the principle that *action should not be interrupted by sub-titles, arrest of film, or remarks before the action is concluded.* To be more exact, to accompany the action and sustain it with the teacher's word is not interrupting it; on the contrary, it is giving it greater definition. The cinema performance means: collaboration between teacher and pupil. When ought the child to ask for explanations? Errors of interpretation on the part of the child should be avoided as they may lead to permanent and ineradicable errors. For these reasons it seems necessary to us — and

we want to insist on this point especially — that the child ought to be able to ask quite frankly for an explanation from the teacher of obscure points *as soon as possible*. The pupil should express his feelings and ideas *without delay*, even if he feels vaguely that these feelings may not be quite commendable.

Some films cause a lot of questions and requests for explanations while others produce very few. Despite all his experience, the teacher is likely enough to run across unexpected cases and incidents.

As a second principle we would lay down the ruling that the film must not be arrested in the middle of a movement. The explanations must be given at just the right moment, according to the phases of the action of the film. The explanations can sometimes be given at a moment when the action is slowed down, but in this case the explanation must be precise and brief, have the tone of a friendly conversation with the children, and sound like some one speaking his own thoughts aloud.

The teacher has a great chance here for exercising all his art and skill. It is all a matter of the right time and using common sense and tact. The master must watch the running off of the film with the greatest attention and should almost feel the need for the questions which the pupils will put to him, or should put to him. The thing sounds more difficult than it really is, but there are obvious signs to be read among the pupils and motions which cannot easily be mistaken.

The greatest number of explanations will come when one is showing films dealing with men at work, and especially in trade and arts and crafts pictures or documentaries. Then come films on animals, while geographical pictures do not call for much explanation from the teacher. Sometimes the projection takes quite a different line from what one might expect. The teacher should mark this well, and it will prove a precious indication for future projections. It is often enough these first hand observations

which determine the final modality of such lessons and show which are the best films to project.

It sometimes happens that the action will reveal itself as obscure owing to the large number of demands for explanations from the pupils. In some cases it may be desirable to run over a section of the film again to allow a better understanding of obscure points and to give explanations. Sometimes it may be best to run over just that portion or those portions of the picture which have not been fully grasped. Sometimes it may be well to re-run the entire film or one or two reels of it. It is not possible to lay down a hard and fast rule for cases of this kind. The most experienced teacher is likely to receive a surprise every now and again. It is by a quick and intelligent handling of sudden small emergencies that he shows his worth as a professional master.

The Use of Explanatory Notes.

There are on the market commercial films produced with an educational intent that carry notes or comments. Some, again have nothing of the kind. We feel inclined to repeat that *nothing*, not even a report, can take the place of the examination of the film by the teacher *before the giving of the lesson*. This does not mean that the explanatory note is useless; on the contrary, it is often necessary.

What should it contain? Since it seems absurd to produce teaching films that are just like scholastic manuals, we cannot accept the notes which read like texts, contain short indications for the use of the teacher, and an illustration of the film *planned for a given lesson*. This principle stands up well in the case of studies for secondary or higher education but for the first grades of elementary instruction, sufficient account is not taken of reality. Moreover, the majority of such notes were composed for films that are out of date; films made 20 or even more years ago. The teacher does not know them, whence comes the risk of errors.

The brochures or notes accompanying a film ought to bear indications of the *date*, the *place*, and the *circumstances* where and under which it was produced, and what was the idea of the producer in making the picture. Only under these conditions and with these safeguards can the film provide a *complete* documentary study on the subject under consideration which may very well consist of something quite new even for the teacher. Let us discard the idea of including in the illustrative note instructions on the way to *prepare* the class. Once the teacher has seen and studied the film, the matter of preparing the children becomes his task.

The brochure or notes ought to contain, for the benefit of the teacher, *an analysis of the film*, with particulars of its various parts and the explanations for a proper understanding of certain passages.

Silent and Sound Film.

The sound film has a special attraction for children and exercises a profounder psychological influence than the silent picture on many pupils. On the other hand, there are some silent films which exercise a great attraction on our abnormal children of egocentric character, and in these pictures the children's admiration is turned towards one individual actor. The interest which the child finds in the picture and which leads him to follow the action from beginning to end is so powerful that it can be transferred from the film itself to the person who presents the film. This is an observation which is the result of years of experience, and seems to be of considerable importance though perhaps it is not generally known. It strengthens our conviction, which we set forth earlier in this report, that: it is not the film which teaches, but the teacher.

The talking film, some people say, cuts out the sub-titles which destroy the continuity of the action. We have already pointed out that badly arranged sub-titles are harmful, but a few well placed and well chosen

titles in a film are no more out of place than any sequence of images. They constitute stages at which the commentator may stop to give those useful explanations which ought never to be lacking in a teaching film. The teacher must speak, become an essential character in the proceedings and adapt his remarks to his audience. The mechanical word, invariable and implacable, will never reveal to us a psychological error made by the listeners. Words can be strangely interpreted as we have learnt from experience. The child, moreover, prefers his teacher's voice to that of the mechanical commentator.

Sound films reproduce the actual noise of machines or of nature, and we hoped, when they appeared, that such films would prove useful for teaching. We have been often sadly disappointed, though, in hearing certain reproductions of animals' voices or machines in action post-synchronized on to films. The impression of truth and reality is lacking in such reproductions, and this, in our opinion, ought to be in evidence in all teaching films. On the other hand, the introduction of a musical accompaniment to fill up the void left by absence of comment seems to us a very unsatisfactory solution. Better no sensations than false ones.

We ought to consider the material difficulties which are connected with the use of sound and talking films in the school.

Here are a few of such difficulties. In the first place, such apparatuses cost a great deal of money; their handling is difficult and delicate, and their maintenance expensive. Then there can only be one machine which all the masters must use in turn. Then there is the question of the film itself. The silent film is delicate and fragile enough, but the sound film is still more so, and one shudders to think of the rough treatment it may have to undergo in a school. It will be handled by non-experts, as the majority of the scholastic profession are not acquainted with the technique of sound films. As likely as not, it will be dirtied with oil and run through a worn-out projector with the reel

too tight. If it is broken, it will be difficult to repair it, and with every chance of cuts and breaks in the sound track, the audition is not likely to be very admirable. In our opinion, the introduction of the talking film in an «improvement» class for abnormal children is a useless luxury. Even if the sound is on disc, or ribbon, or arranged for in any other special way or by any other process, it is, in our view, a mistake and undesirable, owing to its lack of flexibility which hinders the teacher's work. For teaching in the way we understand it, we prefer to see a sound film projected without the sound track and properly commented by the master, for the registered talk is of no help.

b) The Use of Fixed and Moving Projections.

Our experience in this matter now dates back a number of years. It began with children of the elementary and middle schools and then passed on to abnormal young people. The results have been similar and concordant. The fixed projection should be employed in cases where no movement is required to be illustrated, for instance in studies of architecture or sculpture. Slides are not in contrast with the motion picture; indeed they supplement it. In certain films, the movement of the characters and their ridiculous dress distract the attention from the principal object of the picture and only tend to provoke laughter.

In other cases, for example in nature spectacles, where movement is not of especial importance, it is difficult to say which form should be preferred. An experiment made in an «improvement» class of mine with slides of the forest of Fontainebleau gave very strange results. The projection was given on a Saturday. On the following Monday, I asked 15 of the pupils to draw me the picture which had impressed them most, requesting them to make as many drawings as they could remember of the slides. I got altogether 189 drawings. One pupil made 27 for me, while another drew one only. Five pupils made more than 20 drawings, and four more than

ten. This test, made to see if movement is always an essential condition for attracting and holding the interest, did not confirm the theory that movement is essential for a full memory of a thing.

In the case of films where action and movement is essential, the fixed projection, though it may supplement the film, cannot give the same results. This is true of natural phenomena such as waves, cascades, eruptions of volcanoes and all forms of human geography.

There is one case which we have sought to resolve on occasion with the use of fixed projections, but without obtaining practical results that is to endeavour to give the pupils the impression of relief. We have had to abandon — owing to the difficulties which arose — the use of stereoscopic projections in two complementary colours with coloured glass and special lenses.

Some fixed projections on geographical subjects, taken from the proper angle and with a special light, sometimes give excellent results in ordinary slides, but one cannot count upon this definitely.

We use a simpler process, which consists in observing the image given by a photograph reflected in a concave mirror. Despite the error due to the fact that the observation is made on a picture turned upside down, we shall go on using this simple method until something better comes along.

We are of opinion that a great effort ought to be made in this department for the benefit of the motion picture. Landscapes shown in close-ups in movement give the effect of relief better than all fixed projections. We can often get a good clear idea, this way, for instance, of the depth of a valley. In this case the cinema is superior to the fixed projection. Everything is relative therefore, and depends on the case and the subject matter to be taught or illustrated.

Provided we can use them with judgment, cinema and fixed projection are mutually complementary in the teaching of geography.

It is possible to project slides on an entire

wall in the way we have described for the cinema, provided we have a special room at our disposal. Certain shots give a really remarkable effect. For instance, where we have close-ups of trees, we get a strange effect due to the *immovability of the leaves* and the branches.

On the other hand, in all cases where movement is predominant: works, factories, plants, lives of animals, the motion picture is better than the fixed projection, which should only be used when the film is unobtainable. What we have said regarding the dimensions of the screen for animated projections must be slightly modified for slides on account of the absence of movement. We will cite two common cases which will often recur: powerful enlargement in a darkened room, and a small screen in a lighted room.

Let us examine another side of the question. When we began our experiments, our projections were thrown on to a large sheet of drawing-paper. The negatives taken gave us a simple positive to project. After a number of trials, we succeeded in preparing the show in the following manner. We reflected our negative with the projection lantern on a sheet of sensitized paper, thus obtaining an enlargement which did not cost us any more than a positive on glass, and was always at our disposal. The use of fixed projections becomes restricted then to those cases only where there is a necessity for a powerful enlargement.

Some apparatuses which project fixed film pictures allow us to cast on the screen multiple enlargements of small animals of about the dimensions of a centimetre, or even less. The results thus obtained have a great interest for abnormal children. In the matter of insects, these children have quite definite notions which would not be clarified by other means of demonstration. The fact of a real animal being demonstrated to them is of no little importance. It assists their powers of observation.

An apparatus which projects opaque bodies can at the same time allow a projection

of living animals, though certain illumination difficulties are likely to arise here, and good results are difficult with very small animals. It is preferable, in such cases, to make direct observation from life, since the lack of depth of the field of the lenses does not allow us to see an animal clearly in proper relief. Machines of this kind are very useful for projecting microscopic preparations, but such subjects, though useful in higher education, are out of the question for instructing abnormal children.

The utilization of apparatus for fixed projections of any type can prove fairly satisfactory. Projections may be made on any kind of superficies. With a blackboard and a sheet of paper, it is easy to make a drawing that will follow the lines of the light.

We have followed this method in order to give the children an idea of a plane surface of paper. We have projected on the blackboard, in an illuminated room, cellophane views such as can be bought anywhere. The projection of the *Place de l'Etoile* suggested our asking a pupil to follow with the pencil the outlines of the square, the streets that lead into it, and the conformation of the *Arc de Triomphe*.

A check-up was made with the map of Paris on a smaller scale. Further checks were made with photographs of the whole site or parts of it. In this way the child gets a good grounding into the ideas and topography one is seeking to teach him. Care should be taken as to the scale used, both in the optical enlargement and in the maps. It is easy to give the childrens wrong ideas of dimensions and proportions.

c) Results of Cinema Teaching: programmes; time-tables; scholastic texts.

In the preceding paragraph, we pointed out the utility of the two systems of classroom and special hall projections. It is clear that special halls ought to be reserved for the sole use of « improvement » classes which implies the fixing of definite time-tables and hours for work. We must also

remember that the films we use may also be of service to other classes in the school or institute, and account must be taken of the time-table in general.

In the following substance of this report we must concern ourselves with the pedagogy of normal children, which in many points does not differ at all from that for normal children. Indeed the one tends to clarify the other.

What quite distinctly differentiates our teaching from that of normal classes is not only the special aim we have in mind, but even more the special methods we follow to attain it.

We are continually under the necessity of making an effort to adapt our teaching to the mentality of the abnormal child. His capacities and possibilities of understanding only reveal themselves *under the influence* of the surroundings and atmosphere which we create. These minds require active work done in an atmosphere of confidence, relative liberty and close collaboration with the teacher. The atmosphere and surroundings for these abnormal children should be as social as possible, if we are to obtain the best from their possibilities.

Hard and fast programmes and curricula are useless, for it will often prove impossible to stick to them. Here is another thing of which we must take account: that is, the lack of continuity of progress in the mental development of abnormal children. There will be sudden halts and even periods of retrogression.

In ordinary schools, the necessity of having the films by a certain date becomes one of the great problems. All the schools in France follow one official curriculum and, theoretically speaking, they should all want the same film on the same day. Which is, of course, impossible.

For us who are concerned with the instruction and amelioration of abnormal children, the fact of not being able to secure a film by a given date has much less importance. It sometimes happens that some unforeseen circumstance may render the

projection of a certain film most useful and opportune, with the result that the film scheduled for projection on that day must be postponed.

Our task is a constant case of adapting ourselves to circumstances. We will try and get a film that suits our case as well as possible, even if it does not fulfil our needs like the film we have been obliged to do without. It will not be difficult to prepare the children for the new picture. It is sometimes interesting to project a picture that has not direct connection with our course of teaching, but appears to be a well made film and properly treated. We must never omit to show our children anything we believe to be *within the reach of their intelligence*, even if it is not in the regular curriculum. It is this kind of liberty we can allow ourselves with our abnormal pupils that can sometimes surprise the experts of pedagogy.

We generally give our projections after the afternoon recreation interval, often between 3 and 4 p.m., on Wednesday and Saturday. We have often thought that the motion picture has a notable efficacy in arousing pupils from the nervousness and apathy which falls upon them towards the end of a scholastic day. This, however, is true of all pupils and all classes, with the result that the projection hall is generally much in request at the same hour and the same day by various teachers. Whence comes the utility of being able to project in one's own class-room.

There arises the question of the concordance that should exist or the partial concordance to be aimed at between the classic texts and teaching films dealing with the same subjects. This is an educational concept which is inapplicable to abnormal children.

It is perfectly possible to produce films which have a close analogy with the official text-book and practically reproduce them, especially when the film tells the story of children's adventures. The necessary psychological conditions for the children's enjoy-

ment of the picture are present. «Two Children Around France» seems to us the type film of this kind. It pleases all the pupils, but its length makes it difficult to project in the class room.

d) Subjects Suitable for Cinema Treatment.

Instead of enumerating a list of such subjects and topics, it seems to me more profitable to outline the procedure. When the work of «preparation» has been completed, there still remains the most important thing to be done: that is to see that the images seen penetrate deeply into the children's minds and to rectify, when necessary, the errors of impression and interpretation received.

We begin our work of preparing the children by helping them with all the documents and objects necessary which we keep close to hand. For geography lessons, paper, enlargements, etc., for object lessons, the objects we are treating of and the papers and documents referring to them. Similarly for the study of animals. The scholastic museum becomes a necessity in this case.

First series of exercises: observation, followed by applied drawings. We repeat these exercises so as to increase the children's interest in the subject. The motion picture projection comes later. The next day is a holiday, so that I do not make a short summary of the subject until the following Monday at 1 p.m. Contrary to what one might expect, the average memory of the pupils shows equally good results as with examinations made immediately after the lesson or demonstration. There are often requests for explanations, and it not easy to make short replies, although all illustrations possible have been given the children, for the actual work is a *drawing* which the child has retained of his impressions. We ask the child to explain on the back of his drawing — if he can — what he has drawn. If he can make a brief report or note it, so much the better. When one comes to look at the drawings, one will often receive a surprise in seeing that, despite all explanation and all precau-

tions, errors of interpretation have disturbed the pupil's perception of the subject. We must then ask the pupil to «tell» us his drawing and *correct* his mistakes before it is too late. This also makes an excellent elocution exercise, accompanied by dictionary work. Whenever it is possible, it is a good thing to note the *individual words* of the narration made by the pupil, which helps us with the teaching of French.

We have come to the conclusion that the oral account of the drawing which we always demand helps to fix the memory of the subject in a durable fashion.

The motion picture is thus engaged, on the one hand, in exercises of observation, language, words, narrative and on the other, (that is in geography and natural history lessons) in the application of objects with the idea of furnishing material for drawings and written exercises.

What value has the motion picture in history lessons? In a general way, as the result of experience, I am doubtful of the value of films for teaching history. Certainly any war scenes in them are not suitable for our abnormal children, and we never intend to project anything of that kind for them. Our kind of teaching is based on the history of civilization. In some cases, in order to illustrate the differences in the way of living of men, we have used films made in regions inhabited by so called primitive people, where there are cave and lake dwellings of a rudimentary type. This kind of history shows children the beginnings of social existence, and is necessary for them.

It is sometimes possible after a cinema vision to give the pupils some exercises in calculation and arithmetic, but one must take care not to exaggerate.

There are other exercises which one can frequently repeat.

Those of an imitative character can help in an interesting kind of physical education connected not only with films on games and sport, but on trades, arts and crafts, the life of animals, etc.

These are intelligence tests or exercises

of great interest for our abnormal classes, and they would certainly prove useful for classes of ordinary children. They consist in concentering in a single drawing or plan the various ideas observed and appreciated in a film, or in other ways, through drawings, photographs, plans, slides, etc. and all dealing with the same thing or idea. Thus if we show a film of a steamer and some slides of a port, we can ask the pupils to make us drawings of a steamer in a port.

It is possible in the same way to arrange exercises of transposition for the pupils. We show them an old film with horse-drawn carriages and omnibuses, and then ask the children to draw for us the same road or street filled with automobiles and motor-buses. It may be that the experiment smacks a little of the artificial, but the exercise will prove fruitful and advantageous and interesting.

It may be argued that we are asking abnormal children to do what normal children could hardly accomplish. But experience has shown that, with a good training and preparation, our abnormal scholars can do these things. It has often happened before that adults, when visiting schools for abnormal children, have witnessed apparently paradoxical facts and incidents.

We now come to the moral and hygienic education of children, which is a subject that must not be neglected.

There are, as a matter of fact, not many moral pictures made on children's lives. The worst is that such films have been made from time to time, but one cannot find them nowadays. The few commercial films which we have seen along these lines during the last year were not suitable for the school. This shortage is deplorable because such pictures could with considerable advantage take the place of the so-called recreational pictures which are, as a rule, the very negation of moral education.

Films on animals provide us with a precious form of morality for the education of our abnormal children, especially pictures illustrating the love and care of animals for

their young. I have given up using so-called anti-alcoholic films or films warning against the dangers of tuberculosis, which often give results quite contrary to those expected and for which they were originally produced. I believe that our classes provide a perfect stage for experimenting with such films which, as a matter of fact, produce similar results on classes of normal pupils.

Hygiene films are very rarely interesting. Some are too long, and do not interest the children in post-scholastic projection. The showing of a film on « lice » was only partly successful in making the children more careful about the cleanliness of their heads. The pupils did not at once believe their own eyes. They did not identify the louse on the screen with the insect of which they had an unfortunate experience. To make the object lesson clear, I had to begin the projection all over again with a demonstration of a live louse which I placed under a special lens. Then all went well, and the lesson was understood and proved valuable.

e) The Cinema as Instrument of Scientific Research.

The cinema can prove extremely valuable as an aid in research, allowing us to register the actions and reactions of abnormal children.

It is especially useful for making studies on muscular motor reactions of children.

Since October 1933, when a new child is brought to us, we have him or her — when the experiment is possible — make some drawings for us from a special model we use, round, square, oblong and various-shaped figures. The pupil then makes a drawing of some figure out of his own head, and we film the lot. Next year we renew the experiment to see what progress our pupil has made.

It is some time since we began to register scientifically, with the use of photography, the gestures and habits of children during the hours of recreation. The process has not proved entirely to our satisfaction, however. The determined action is re-

gistered in a complex series of movements. We are therefore not certain of obtaining comparative indications in space, and we have no indications whatever in time. Only the motion picture, which does not register only one moment of an action or movement, but the complete movement can give us really valuable indications and lessons. Thanks to the film, a comparison of pictures registered in films in two different stages allows us to see with certainty and precision how a gesture or movement has been modified.

Registration is made with extreme rapidity. By simply counting the number of the images or photograms we can deduce with guaranteed precision the time required by or occupied in a given action or reaction.

Shots made in the playground do not offer any special technical difficulties, but we must take care not to attract the attention of the pupils to the camera or prevent any modification in their behaviour or movements. This has not proved difficult for us, for we had already had the experience of having taken several photographs on these lines. When it comes to making pictures inside a class-room, of the children engaged in their work or ordinary avocations it is different. The insufficient rapidity of the film and the impossibility of having recourse to artificial light have added complications to our labour. We have found it possible to do this work only by daylight.

It would not be possible for us to enumerate here all the films made in these circumstances. The experiments took different forms, and sometimes unforeseen incidents interfered. For instance, when a pencil broke during the making of a drawing by a pupil. One wondered what his reaction would be.

Generally speaking, the use of the motion picture for studying the movements and reactions of abnormal children has enabled us to gather precise data on the time factor in movements, on the duration of reactions due to various stimuli, by means of comparative study on the difference, that is by

two films made at various times. Some of our observations have proved most valuable. These studies unfortunately are impeded by difficulties of a material and financial order. Were this not the case, we should have a vast quantity of most interesting material to produce.

**f) Special Qualities
Required of
Teaching Class-
room Projectors.**

It is our opinion that the ideal would be to have a number of 3 mm projectors of different types in every school. One could be used for class projections; another for special hall projections and post-scholastic shows.

The first machine, as we have conceived it, is not actually on the market at present, but it could easily be made. Indeed, it would not cost very much. Its purpose would be to project on a screen a metre in width normal 35mm films in the ordinary class-room, without any special curtains. The apparatus ought to be able to be stopped for any desired length of time and be suitable for the occasional use of fixed films as well as motion pictures. Such a machine ought to be fitted with a reversible lever to run the film back. The projector ought to be enclosed in a steel box and be capable of being put into an ordinary cupboard. The lamp ought to work directly, and not be higher power than 250 Watts. It should be fixed on a grid and water-basin or parallel mirrors or glasses to prevent the deterioration of the film when stopped. A simple reverse mechanism for rewinding the film from one bobbin to another, would suffice. No motor is required. Scholastic films should be short, and no motor is necessary. Our own experience over four years with a simple projector of this kind, which can be placed on a ordinary camera tripod, has shown that it is most successful. Teachers in ten different classes have handled it with good results.

There is no necessity to modify the electric installation for a projector of this kind. The current can be taken off any ordinary connection as the power required is small.

The machine which is fairly robust can be taken into the class-room where it is needed. I do not think that special dark curtains and screens are required at the present time. The apparatus I have in mind requires very little installation. This method has also the advantage of showing something of the cinema to abnormal children. The spectacle is given in the class-room, without darkness, so that the reactions due to the darkness are avoided. If later on, one takes the children to the special darkened hall, they will not manifest the usual darkness reactions so ostensibly.

The second apparatus for use in specially prepared and equipped halls for post-scholastic visions of pictures may very well be of the type chosen by the Ministry of the Public Instruction. There will be no need to have a bobbin-arrester. This type of machine must be much more powerful, and will require a special illumination equipment.

I believe that in ordinary circumstances a machine for projecting fixed films capable of showing living animals and transparent objects of small dimensions will be preferable to a machine which can be stopped at each or any photogram or which can project opaque bodies. There are to be found numerous films of views and the Pedagogic Museum makes free loans of them. These views are more modern than plates, and a collection can be purchased at a reasonable price, and will be always available. The machine for projecting opaque bodies requires so strong a current for the illumination that it is practically out of the question for ordinary classes which are not specially equipped with proper plant. The restricted number of pupils in our classes permits us to go in for direct observations on postcards, prints, drawings and illustrations of various kinds, without any need of enlargement. I always show the children the films I have made on them at their work and the studies of their movements. This is necessary if one wants to obtain a natural reaction. It is only a continuous collaboration which allows one to get genuine results. The children are

delighted to see themselves on the screen pictured naturally and without pose or attitudinizing on their part.

Seeing themselves on the screen has enabled some of the pupils to correct their defects.

The special hall ought only to be used for motion picture projections, and should always be ready. It should be able to be placed in total darkness by blinds and curtains. The walls should be tinted violet as should also the ceiling, if possible, in order to avoid the light reflected from the screen. Black should not be used for fear of possible reactions on the abnormal children. Violet lit up by yellow lights gives an impression of a neutral grey tone. The back wall should be in white stucco or distemper, without any ornament of relief so that it can be used as a screen when the whole stretch of it is required for this purpose. This can be covered in the ordinary way by a violet cloth bringing the dimensions of the screen from 2.50 to 3 metres. The screen is lit with diffused light attached to a special bracket. On the right there will be a gadget to free the wall for use as a screen.

The illumination of the hall during the projection is effected with yellow light bulbs in coloured glass shades fixed to the ceiling in such a way as not to cast any light on the walls or the screen. This lighting will avoid refraction, and allow of the taking of notes with an illumination that will be a weak white light. There will not be any trouble from light reflected from sheets of white paper which would take place if the light were pure white. A rheostat under the command of the operator will allow him to regulate the intensity of the light. In the hall we have equipped for ourselves this special light is obtained with three 50 Watt lamps; the central placed in a large paper cone opened at an angle of 90 degrees; the other two lamps placed laterally in half cones on transverse axes with a strip of paper eight centimetres long to prevent the light striking the walls directly. The

ordinary illumination used for the time when there are no projections is supplied by two 100 Watt lamps placed in light diffusers somewhat modified by ourselves.

We have gone into all these small points most carefully with the special case of our abnormal children always in view.

g) Perception and Retention of Facts and Ideas.

An inquiry we made showed us with a certain definiteness and precision the poverty of knowledge of an abnormal child in the matter of facts of common knowledge and happenings. The motion picture allows him to grasp many things which it would otherwise be difficult to instil into his mind. The abnormal child is almost always a «visual» case. Words and phrases pass over him without making any impression, because he does not understand their meaning, while the cinema, *owing to its movement*, and in spite of this, as we have had occasion to point out already, brings the child multiple means of acquiring cognitions. We have engaged in an extensive symposium along these lines, collecting a vast number of reports and drawings. We have sometimes been painfully surprised at the large number of not altogether desirable cognitions which motion pictures have furnished for abnormal children. Our inquiry has convinced us that in the present conditions of school and family life the cinema is responsible for many consequences which we are only now beginning to perceive, while there are other results we do not even now appreciate.

Development of the Spirit of Observation.

— If it is judiciously employed, the scholastic cinema can exercise a very considerable development on the spirit of observation. The experiment with the «Forest of Fontainebleau» and the numerous documents which we have collected show with what exactitude the children observe special parts of the action and commit them to memory, or, at any rate, retain them so as to be able to repeat them. This destroys the theory supported by some people even now

— though without any valid proof — that children do not see the particulars because they «pass over the whole picture too rapidly». Experience shows that it is on account of this movement that the sense of observation becomes strengthened, both from seeing scholastic films and objectionable pictures in the ordinary cinemas out of school hours. We have plenty of proof of these facts.

Development of the Memory. — I do not know if it is true that the cinema is *in itself* especially helpful for the memory. It assists the visual memory in the case of silent films, and the aural memory in the case of talking pictures. This, taken with other proofs, would go to show that the talking films have a stronger effect on the memory than silent pictures, provided no third agent comes into action in either case. In reality this is not the case. With aid from the teacher, and as a result of special exercises to follow, the silent film and its effects remain longer in the memory.

In the case of scholastic films, we have often noticed that the children are able to reconstruct the chief theme even after a lapse of three or four years. This is worthy of note if we think of the changes that take place in an abnormal child between the age of eight and twelve.

Development of the Creative Faculties. — The cinema encourages the creative faculty with abnormal children to an extent that may surprise us with the results obtained. Films seen outside the school develop this faculty also, but not always in a desirable fashion. Class films always have beneficial results.

Projection and Fatigue (Eye Strain and Brain Fatigue). — The motion picture produces two kinds of fatigue or strain: visual and intellectual. If the mental tension required of the child is too high and prolonged, the film will fail of its pedagogic effect. Eye strain causes brain fatigue with many abnormal children. This fatigue is due in part to the continuity of action, and

is much less noticeable if the film is stopped for explanations.

In this case, we do not get both eye strain and brain fatigue. There are certain signs by which one may recognize the presence of fatigue or strain with the abnormal children, a shaking, or moving about of the head, and the bringing up of the hand to the eyes, (occasionally or regularly).

Due account must be taken of these signs if the best results are to be obtained. Long films should never be shown, for these merely fatigue the children and leave no trace on their minds. The results of projecting such pictures can never be good, and will only exhaust the pupils.

We have children in our classes whose sight is very weak. One has only one eye, and another child sees but very little with one eye. They place themselves at the distance from the screen which they know to be best, and their reactions are just like those of the other children.

h) Teachers and the Cinema. Technical or Pedagogic Instruction. Collaboration in the Production of Didactic Films.

A) Many haphazard statements have been made on this subject, for pedagogy is still encumbered with prejudices. The term

«cinematographic pedagogy» has been used.

It would be necessary to deal with the question in an exhaustive manner, and I fear that a brief summary might not give due expression to my ideas. At the same time, it may be alleged that the technical and pedagogic instruction of teachers will depend on the individual concept which each of them has of the motion picture and its uses. The form of preparation and instruction will differ according as a teacher considers the cinema as a means for teaching the children the subjects in an official curriculum, or according as the object aimed at is to develop the children's faculties without any other purpose but their welfare and social future.

This last point of view is chiefly that of the teacher of normal children.

Once we have recognized the importance of the motion picture in the instruction and education of weak mentalities, it follows that a specialized professor holding a degree must not be ignorant of the way to maintain and run a projector, nor of the general technique of motion picture work.

He should begin his studies of these subjects in the normal school, and gain practical experience with apparatus there and elsewhere.

B) *Collaboration in the Production of Scholastic Films.* — By this we mean the collaboration between teacher and cinema expert or cameraman.

It would seem that films have been made and labelled «educational», but it has not been borne in mind that such films were meant for the education of children.

The first consideration of the producer of teaching films should be to try them out

and experiment with them before printing a large number of copies. I have made experiments along these lines with my own pupils in my own classes, though I cannot go into particulars here. The observation exercises have gradually developed the abnormal children's faculties, and the lessons given in this way can be extremely useful for the preparation of teaching films intended for normal children.

If the teacher is to take his part in the preparation of a film, the task of the cinema-man is of the first importance too. It is only occasionally that one meets teachers who are also cinema experts. The solution of the problem lies in a cordial collaboration between the two men, and it lies also in knowing what it is desired to produce, thinking especially of the child and the results on him. This should be the real and sole aim of our efforts.

THE AGRICULTURAL CINEMA IN FRANCE

BY

M. Massé

PRESIDENT OF THE PERMANENT COMMISSION OF AGRICULTURAL CINEMATOGRAPHY

Premise.

Cinematography is a magnificent method of general education and technical preparation. Its superiority over other methods is due to the facility with which it can be used, to the thoroughness and preciseness of its instruction and especially to its capacity for showing minute and microscopic objects enlarged thousands of times, thus rendering possible the study of hitherto ignored but very important objects.

The motion picture, when applied to teaching and spreading a knowledge of agriculture, becomes an incomparable interpreter of nature and science, a precious source of information which teaches pupils how the land is to be cultivated and live stock raised.

The cinema can show us modern farm planning, the construction of rural habitations and big schemes like electrifications, drinking water installations, irrigation plants and land reclamation projects and practice.

Veterinary science can be taught by its aid, and how pests are to be fought, what is the best way to preserve agricultural products, and the various trading and commercial systems in use. Packing, freight, and selling methods can also be illustrated by means of the film, while it can be usefully employed to summarize agrarian inquiries. The motion picture develops the powers of observation and research in the young, and stimulates their initiative and enterprise.

The agricultural cinema, moreover, allows

us to undertake, within reasonable time limits, an extremely efficacious intensive campaign of propaganda for the most urgent land and live stock questions of the day.

The agricultural cinema has become today an indispensable aid to the country teacher, the lecturer, the engineer, the rural propaganda agent. It does away with a lot of useless effort, and reduces to a minimum the lengthy preparations of lessons and scientific experiments. « Instruct and amuse ». The purpose of the cinema can be summarized in this brief formula. The implication of instruct is obvious owing to common experience, while it is now generally recognized that it is also necessary to amuse and entertain. Everybody, whether townsman or countryman, has need of something to distract him from the monotony of his daily existence, and the motion picture fills the want admirably. Well chosen pictures can instruct and educate while entertaining.

The Agricultural Cinema as a State Institution.

As far back as 1923, the French government, realizing the usefulness of the film as a teaching and propaganda method, created the institution known as « Agricultural Cinematography ». A special legislation of a definite character was prepared in order to adapt the motion picture to the requirements of agriculture. A special fund, obtained from a percentage taken on the government returns from taxes

on games of hazard was placed at the disposal of the Ministry of Agriculture for organizing and developing the agricultural cinema. A special commission was instituted in the ministry, to which was given the name of «Permanent Commission for the Agricultural Cinema».

The tasks of this commission, which was composed of 50 members chosen from among parliamentary deputies, personalities of the world of agriculture, science, cinematography and the university were as follows.

A careful examination of all the questions connected with the granting of subsidies for the production, purchase or loan of films; and for the installation and working of cinematographic apparatus in rural communes and country schools with the object of encouraging in every way the spread of knowledge likely to be useful in agriculture.

The commission should when required give its opinion on all points connected with educational and technical applications of the motion picture.

The Ministry of Agriculture. The ministry will exercise its functions:

- 1) in granting subsidies for the purchase of cinema apparatus;
- 2) in producing agricultural films;
- 3) in the free loan of films.

Cinematographic Material. In order to be able to receive ministerial subsidies, the apparatus for which the subventions are requested must prove satisfactory to the state commission formed for this purpose. All apparatus is to be subjected to the examination of this commission which is composed of experts and persons versed in motion picture technique. The following qualities are expected of a first class machine: solidity of construction, simplicity of use and handling, it should be easily transported from one place to another, not take

up too much space, not damage films, throw a clear image on the screen, with plainly defined borders. For some years now, manufacturers have gone in for the construction of portable machines which can be carried in a suit-case with great ease. Their assembly is also quite simple, since they can be placed on tripods like ordinary cameras. Machines of this type are very useful for professors of agriculture and lecturers who are obliged to organize meetings in the various communes.

The Ministry of Agriculture grants important subsidies for the purchase of apparatus. These subsidies vary according to the nature of the bodies or communities requiring them. In any case, it is settled that only rural communes, departmental agricultural organizations, schools of agriculture and bodies especially constituted for agricultural ends can benefit from these subventions.

Subsidies for about 3000 apparatuses have been granted up to now, and the Ministry of Agriculture has spent 4 million francs in subventions of this kind.

It may be pointed out that the only format in use is the normal 35 mm. The utility of sub-standard film can be appreciated when it is a case of definite teaching for the requirements of the schools. The case is different, however, when it comes to organizing public gatherings of recreational rural cinematography. It would be impossible to run programmes made up solely of technical films if we hope keep the attention of a rural public for a couple of hours or so. The organizers must be allowed to secure from the general market those theatrical pictures which have enjoyed success in the ordinary cinemas with which to complete their programmes. Such films are only produced in normal size.

If one day we were to find ourselves obliged, for reasons of economy, to adopt a sub-standard size film, it would become

absolutely necessary to choose a size which would win the approval of other nations.

The exchange of films between the various nations depends essentially on this condition.

Films. The kind of film to use is a subject which must be taken very seriously because the popularizing force which derives from a given picture depends closely on the methods which have guided its production.

In the year 1931, the Ministry of Agriculture organized an extensive symposium with the idea of showing the current views on the cinema and its efficacy, for the purpose of improving its own motion picture systems. We shall make due reference to the data which was collected from this inquiry, and shall endeavour to define the qualities which should be found in a good film from the point of view of its conception, nature, technique, length, etc.

In the case of the agricultural picture, it is indispensable that the author possesses a knowledge of a number of things. He must be acquainted with science in the first place, and the practice of agriculture, understand the cultivation of the land, and raising of live stock. He should also be a practical farmer of experience, and have first hand and intimate knowledge of all farm work and agricultural organization. He should know the customs, life and habits of the peasant population.

At the same time, he ought to be an able cinema-man, with an eye for effective shots, and quick to seize upon any interesting and important detail at the right moment. He should have something of the theatre man's aptitudes, and be an expert in handling the motion picture camera.

It can hardly be gainsaid that one does not often find all these qualities and capacities in one individual, whence we ar-

rive at the fact that films of this type usually require two specialists.

It is regrettable to have to point out that sometimes films which are perfect artistic and cinematographic successes, contain the gravest heresies and the most lamentable errors from the agricultural and scientific aspects.

Sometimes again, both scientific and technical reality are duly respected and coordinated, but the scene sequence is without connection and lacks cadence, rhythm, life, in a word it is good, but it is not cinema.

Again, the purely commercial and speculative character of the film stands out too obviously, and the spectator gathers the impression that the last thing that was desired by the producers was to do something really useful and profitable in the department of culture and education.

This latter is, in fact, one of the reasons why the Agricultural Cinema Commission is studying with the greatest attention all schemes for the making of films which are laid before it, which films it proposes to control and direct through its own well known specialists.

What kind of films will this method give us, and what is to be their destination? Without attempting to establish any rigid kind of classification, it is necessary, for purposes of convenience, to group them under some more or less special denominations and categories.

In this way, we can define a kind of didactic-scientific grouping corresponding to the requirements of agriculture.

We are referring especially to films of animal and vegetable physiology, microbiology, physics, chemistry, etc.

It must be admitted that films of this kind do not offer any special interest to spectators in rural cinemas, as they are generally somewhat above the intellectual level of the audience. Pictures based on lab-

oratory work which are as a rule outside the domain of ordinary agricultural experience, are not appreciated by agricultural populations which consider them « too scientific ».

On the other hand, directors of institutes of agricultural instruction, rural teachers, etc. use these scientific films with great advantage in their lessons and lectures.

Films of this type must be very exact and carefully made, without falling into the defect of pedantry. They should be well constructed and such as to arouse the spirit of observation which is so useful in the agricultural business. But even if scientific, they should not be too theoretical, and should have their practical side. The ideal thing would be to have several pictures on the same subject to be distributed and used according to the age and intellectual level of the pupils.

In the matter of propaganda films and films intended to popularize agriculture, films, for instance teaching methods of land cultivation, plant grafting, raising of livestock, the building of peasant dwellings, defence of plants against pests and disease, such films as in fact constitute the larger part of our collection, we are able to state that in general the taste of the agricultural public entirely approves of them.

We now come to a question of considerable importance which in our opinion deserves immediate consideration.

If agrarian science is based on well defined principles and immutable laws, agricultural practice which is based on these principles and laws varies according to countries, districts, soil and climate.

Agriculture is first and foremost a local science. This is why a film meant to do propaganda work for agriculture while it may by an excellent film in general, will find little favour with peasants in a region where

the systems it illustrates are little used or not suitable.

The subjects treated do not always permit of our giving indications applicable to all agricultural regions. If we attempt this, our films will be much too general and vague in character. It is therefore always better to make regional pictures which take note of local facts.

The film should also be made in its natural setting, thus faithfully reflecting the surroundings and special costumes and habits of the countryside. Trick photography should be avoided absolutely. The chronology of facts should be scrupulously observed and should correspond faithfully with the seasons. Films setting out to spread a knowledge of agriculture should be strictly objective in character and should be based exclusively on the technical part with which it is chiefly concerned. Should the temptation to introduce some sentimental plot into the picture be resisted?

The subject is essentially a controversial one.

Let us say at once that if the scenic action requires some plot of this kind occasionally, it should not be allowed to distract the spectator's attention from the technical part of the film. Its only purpose in films of this kind should be to create a temporary attraction and to keep the spectator's interest alive.

Films of agricultural propaganda should be short, or at any rate certainly not long. 400 metres may be considered a good length. The programme in any projection should be varied, and at least three films should be used. These should consist of a 1) news-reel picture or a documentary; 2) a technical agricultural picture or a film of agricultural propaganda; 3) a recreational picture, preferably a comic.

The sub-titles should be prepared with the greatest care, and all expressions of a

too technical or pedantic nature should be strictly avoided. Enough time for them to be properly read should be allowed in the projection.

One should work on the principle that if the image on the screen is not sufficient to explain the picture and its ideas, the trouble cannot simply be remedied by long subtitles.

We now come to an examination of the possibilities of the sound film. So far, we have only used silent films, but the cinemas today, even in many of the smaller centres are wired for sound. It is more than probable that this tendency to use sound films will increase rather than diminish, and therefore the Cinema Commission has examined the question carefully. The matter is no light one, for it will inevitably form one of the bases of the commission's future policy, with financial consequences that must be considered with extreme care and foresight.

About a year ago, a number of silent agricultural films were synchronized for sound as an experiment. The result among the peasant population was, on the whole, most gratifying. It does not therefore seem hazardous to state that in future we shall be obliged to adopt the sound and talking film for our agricultural propaganda films. In the matter of straight teaching pictures, it does not seem, at any rate at present, that the sound film's complete utility has been proved.

Distribution and Utilization of Films.

In order to demonstrate the great efforts made by the Ministry of Agriculture in the field of animated projection, the best thing to do is to quote some statistics.

Our own film collection is composed of 460 pictures dealing with the teaching and propaganda of agriculture, either in a recreational or documentary fashion. There are

at least five copies of every picture, and of some films there are no less than 20 copies. The reels in stock total 7000, which gives a meterage of 2,000,000 metres worth about seven million francs.

Out of the 460 films made, more than 150 were produced under the authority and inspection of the Ministry of Agriculture with the assistance of its own staff of agricultural and cinema specialists.

It may be added that this collection, in spite of its importance, has often proved insufficient to meet the requirements of the agricultural population, especially at certain times of the year. This shows the growing interest of the French rural population.

In order to secure the widest possible publicity for the films in our repository, we have had to organize a decentralizing system.

The distribution organization at present comprises:

1) a central film repository of agricultural pictures at Paris; 2) regional repositories for agricultural films, one for each large district eight in all; 3) permanent repositories with private organizations such as regional bureaux, departmental offices of the educational cinema (25 of these have already been formed).

In the course of the last season, the number of films loaned, both from the central repository and the provincial archives, reached a total of about 21,000 which means some 35,000 reels.

Statistics show that out of 100 films loaned and made under the direction of the Ministry of Agriculture:

30 were agricultural teaching or propaganda films made under the management and control of the ministry;

61 were general teaching and documentary pictures bought in the market;

9 were either recreational or news-reel pictures.

It is worth while pointing out that if the

percentage of recreational films is 9 per cent the number of requests for such films was much higher. Generally speaking for each projection a comic was asked for. It was not possible to satisfy all these requirements owing to lack of copies. There is also the fact that the loan of these films is entirely gratuitous as is also the sending by post of such pictures. There are no expenses whatever for the borrowers to face.

The halls used for the projections are of various kinds with only a few specially fitted out for the purpose. The meetings are generally held in schools or in the municipal buildings and sometimes even in cafés.

A certain improvement in this direction is to be noticed, however, and a certain number of halls have been specially fitted out for the projection of films especially in the more important communes. These halls, known as *halls for festivals and occasions*, though in no way luxurious, are properly fitted out and suitable for the purpose.

All our films are made of « non-flam » material, and can therefore be shown in any hall without danger. It is, however, always advisable to take all precautions and isolate

the projecting cabin.

We ought to remark that the majority of the directors of the agricultural service have portable projectors at their disposal. At the same time, thanks to the close collaboration between the Ministry of Agriculture and the Public Health Service, campaigns for public health and hygiene have been organized in rural districts.

This form of propaganda is especially interesting because it is carried out before the same public and cleverly coordinated with the agricultural pictures. It gives the material shown the best possible chance to be understood and it should be noted that sound films are used for this hygiene service which are much appreciated.

To conclude, the organization of the agricultural cinema in France has so far given the most encouraging results. There is no doubt that this work is an eminently useful and profitable one for the peasants, and it is to be hoped that the system we have followed may be copied in other nations perhaps through an exchange of films which will lead to a close and useful collaboration in the interests of human progress.

THE CINEMA FOR THE IMPROVEMENT OF RURAL LIFE

BY

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It seems superfluous to repeat that agriculture is the chief economic factor in the wealth of nations and the principal element in their social stability.

If agriculture does not receive the attention it deserves, and proper measures are not taken to allow the peasants to live in satisfactory conditions, if the rural population begins to abandon the countryside, the national industry and trade will suffer, and the social and economic situation will be disturbed. Every effort should therefore be made to keep agricultural conditions normal.

The Rural Film Should Deal with Social and Family Problems.

The motion picture here, as in other fields, can render great service. The already existing instructional films which aim at improving the peasants' technical knowledge, should be supplemented with other pictures dealing with social and family questions.

It is not only economic conditions which operate in agricultural life, but social and rural factors have their influence also. It happens sometimes that a farmer who has reached a certain standard of wealth wishes to live in a city on account of the greater degree of comfort there. The peasant in general finds the life of the city attractive. This is a reason for us to make country life more appealing. We must consider how this is to be done.

It has been argued that it is necessary for man to have enough to live on (economic satisfaction) before he can begin to philosophize (social and moral satisfaction), but it is my opinion that man can live and philos-

ophize contemporaneously, and the two questions can be examined and dealt with at the same time. I see in this the possibility of developing and improving the social and family side of domestic life.

The farmer ought to make a better use of his resources to render his surroundings and home life more agreeable, while his wife should interest herself in forming the character of her children and making the home more attractive. Mussolini has placed the ruralization of Italy in the front of his programme, and this includes the improvement of country life which is so necessary.

The movement began in Belgium on the occasion of the exhibition of the Model Farm at Liège in 1905, and was seconded by the exhibition of the Modern Village at Brussels in 1910 and the exhibition of Ghent in 1913. It was on this last occasion that the Belgian Commission for the improvement of rural life was constituted under the chairmanship of F. Graftiau.

The Universal Agri- cultural Exhibi- tion of 1935.

Similar problems have led to the creation in other countries of various organs which have since been united in an international federation presided over at present by Professor Klein.

This federation proposes to organize next year in the Grand Duchy of Luxembourg and Belgium a very important congress. All the specialists engaged in the question of the economic and social improvement of the conditions of peasants will be present. The congress will take place in the third week of July at the beginning of the « Interna-

tional Agricultural Fortnight» in connection with the universal exhibition of 1935 organized chiefly by Deputy Angelini, the enthusiastic spirit behind the F.I.T.A. Italy's participation has been assured, and the presence of numerous other nations is certain.

The agricultural section of this exhibition will include a « model farm » organized by the Belgian commission for the amelioration of rural life. Visitors will be shown what ought to be done to improve social conditions in the countryside.

The main lines for improving rural existence have already been traced in the findings of the international commission. These findings or declarations were prepared at a meeting presided over by the Marquis de Vogüe in Brussels in 1925. The commission recognizing that agricultural progress depends on the triple factors of technique, social and economic progress, proposes to take special steps towards the improvement of the general conditions of rural life.

It declared that we must endeavour to render existence in the country more attractive, using all the means at our command to keep the rural population on the land, and especially the young generation of peasants.

The directors of the Rome International Institute of Agriculture organized in 1918 a section for the study of social-economic questions. This section is now in a position to make a proper collection of all the material and documents necessary for working out a programme of rural life amelioration.

It seems to me that economists and sociologists do not give sufficient importance to the position of women in rural life in their articles and studies.

In the majority of countries, women takes a 30 per cent share in agricultural work, both in the fields and on the farm itself. The women, moreover, have to manage all the domestic work of the farm-house, the domestic accounts, and they must also look after the education of the children — that is the young people of the rural districts. Altogether, women carry out about 85% of all the necessary work on farms. In Belgium, the

National Commission of farmers' clubs, in association with certain domestic economy schools, has done a great deal to lighten domestic labours.

Creating the Rural Mentality.

We now come to the fundamental point in the amelioration of rural life: *the formation of the character of the young peasants.*

It is all very well teaching the countrymen agricultural technique by means of instructional films, showing them what plants to cultivate, and how to grow them, but this does little to improve their comfort or the general standard of their homes. Until efficacious general measures are taken for forming an agricultural mentality, and for improving the character of the rising generation of peasants, we shall have done nothing useful for rural life.

The characteristics of real civilization are the elevation of the character, the control over oneself, the dominion exercised over one's instincts and the traditional defects deriving from preceding generations.

Great progress has been made in the field of infantile hygiene, and the mothers have been taught the errors they should avoid and the proper rational systems to follow. In some countries, subsidies for children and food supplies are well organized, but in the matter of moral education, we still in the stage of empiricism.

The rural cinema ought everywhere to suggest to families the best methods for raising the level of their civilization by improving the character of the new generation.

The reports and statements issued by the fourth Belgian international congress for family education form a basis of reference for questions of family education, and the institute will shortly be in a position to supply inquirers with useful information on these points.

Education and the formation of habits can only result from a series of practical exercises.

The motion picture can and must act as a guide in these subjects, pointing out the

lines to be followed. Educationists ought not to be content with seeing animated examples before their eyes. They should apply these examples in their own homes.

Conclusion. The motion picture is the most marvellous instrument for popular education, but in or-

der that it may reach a maximum of efficiency and utility in the countryside, the organs which make use of it should give due weight in their projections to professional, moral, family, social and recreational questions in order to stimulate the amelioration of rural life in the highest sense of the term.

TWENTY YEARS' EXPERIENCE WITH AGRICULTURAL FILMS

BY

Raymond Evans

THE lamp of experience, that old and reliable source of illumination so eloquently adduced by Patrick HENRY in his most-frequently-quoted speech, doubtless throws rays sadly lacking in actinic value. It would never do for studio illumination. This old lamp does have a certain power, however, not possessed by our most modern studio «inkies». After its fashion it can illuminate tomorrow, which is something that even a fifty-kilowatt incandescent cannot do. So we may with good reason use this lamp in trying to chart the future of the educational motion picture.

The experience of the United States Department of Agriculture in the use of official motion pictures for educational work in agriculture doubtless covers a longer period than does that other similar organisation. Beginning with sporadic experimental production in 1911, the work expanded rapidly during the period of the World War, and by 1920 motion pictures had become a well-established feature of the Department's educational work. The Office of Motion Pictures,

created July 1, 1923, is now a branch of the Extension Service, serving primarily over 4000 country agricultural agents throughout the country. This office circulates copies of about 250 pictures, (silent, sound, 35 mm. and 16 mm.) ranging from one to six reels each, an aggregate of about 3000 reels. Annual shipments average about 4500. No rental is charged for this service, the borrower paying only the transportation charges.

While agricultural extension agents have preference in booking, effort is made to serve also, so far as possible, schools, especially agricultural high schools, churches, civic organisations of various kinds, and other worthy agencies. Figure 1 shows the average annual distribution of Department of Agriculture films to country agents. Figure 2 shows similarly the average total distribution of these films.

From this relatively long and extensive experience in the making and distributing of educational films in a specific field, we should be able to establish certain facts and tendencies, the discussion of which may be

helpful in orientating and promoting the motion picture as a means of education in other fields.

Briefly summarized, the conclusions we have been able to reach in the light of this experience are:

1) That the motion picture is the most effective tool available for laying the groundwork of an educational campaign among adults;

2) That the motion picture has great potential value in the field of elementary education;

3) That the use of sound is destined greatly to enhance the value of educational motion pictures in general;

4) That the sound picture is not destined wholly to displace the silent picture in educational work, and in elementary work, perhaps only to a small degree;

5) That 16 mm. film, in spite of its limitations, is destined to prevail in a major sector of the educational field.

Of these conclusions, none is more firmly fixed in the minds of those qualified to speak than is the first. In the work of cattle tick eradication, control of the cotton boll weevil, prevention of forest fires, and eradication of bovine tuberculosis — to mention a few of the projects in which the United States Department of Agriculture has successfully used the motion picture — this medium has been found to be highly efficient as a means of preliminary propaganda.

Take, for example, the case of one of our Department's earliest propaganda films. «Out of the Shadows», designed to aid in the fight for the eradication of bovine tuberculosis. This film, realized in 1921, was used in every local campaign waged by the Department of Agriculture in this work for more than ten years. Forty-two copies of the film were worn out in this service. The picture has been shown in every rural com-

munity in the United States where cattle are of great importance, (see figure 3) and the fact that now more than half the counties in the United States are free from bovine tuberculosis may be attributed in considerable measure to the influence of this film. Sixty-one copies of «Out of the Shadows» have been purchased for use in foreign countries.

Similarly, films have been used with marked effect in the campaign for the eradication of the cattle-fever tick, in cotton boll weevil control work, and in the campaign waged by the Forest Service against forest fires caused by the carelessness or ignorance of man.

Though not designed for use in elementary work in Schools, Department of Agriculture films have been used to a considerable extent in school work throughout the United States. The success reported by teachers in using these films, designed primarily for adults, tends to confirm the belief that there is a great field for films prepared solely for use in schools. In view of the effectiveness of motion pictures in our own work, we feel that the importance of providing films made especially for the elementary field cannot be too strongly emphasized.

For educational work in general, it seems clear that the talking picture, if the technique of presentation is good, is a more effective tool than the silent picture. With a given footage, a much greater amount of subject matter can be presented in a lecture picture than in a silent picture with explanatory sub-titles. Evidence to justify the belief that the talking picture, for any purpose, is more acceptable to the general public than the silent picture, is so overwhelming as to leave little room for argument.

As to the value of talking pictures for elementary work, we have no very conclusive evidence. Our experience in this regard

is limited, since our films are not presented before children to as great an extent as before adults, but such reports as we receive from teachers who use our films tend to indicate that silent pictures in some respects are better than «talkies» for work with children of the lower grades.

Our conclusion with respect to the ultimate prevalence of 16mm. film in most educational work is based on observation of the actual trend of development rather than on belief that the merits of narrow-width film in all respects justifies the trend in that direction. It is our belief that for serious educational work, outside of the small classroom, standard film is far superior to 16mm. films, especially for sound, and that the advantages of the 16mm. projector, as compared with the 35mm. portable, are not so great as is popularly believed. We know that this contention runs counter to a very general belief, but we feel that the facts fully justify our position.

That producers and exhibitors of educational films should zealously strive to attain the highest degree of excellence in quality, both as to picture and sound, will scarcely be denied by anyone who is genuinely interested in the success of educational cinematography. It will generally be admitted too, that the public is already exceedingly critical as to the quality of motion pictures, especially as to sound. Nor can it be denied that 35mm. film is better than 16mm. film for commercial presentation. Indeed, it may be laid down as self-evident, that, *everything else being equal*, 16mm. film can never be as good, intrinsically, as 35mm. film, which offers more than seven times as much area for transmission of light and two and one-half times as much room for the modulations of the sound track, which, even in 35mm. film, may run as high as several hundred *sine* waves to the inch, and in 16mm. must

approximate 500 to the inch if fair quality of sound is to be obtained. So I think it may be assumed that, if no question of cost, personal convenience or legal restriction is involved, the educator who has any technical knowledge of the presentation of motion pictures will use 35mm. film if he uses films at all.

Nevertheless, the fact remains that most educators are laymen in the field of motion pictures, with little knowledge of the technical question involved, hence it seems likely that amateur rather than professional opinion is to prevail in this regard, for the time being at least, and that the 16mm. film will presently be largely used in a sector of the educational field where the standard portable projector would be decidedly more efficient.

This is a situation comparable to that which would obtain in military affairs if civil opinion were to override professional experience and decree that soldiers should be armed with toy 22-caliber rifles, rather than standard 30-caliber military rifles using high-power ammunition. It could plausibly be argued that 22-caliber ammunition is very cheap and easy on the taxpayer, and that the 22-caliber rifle is light and convenient for soldiers to carry, but who can conceive of such an argument prevailing in the matter of national defence? Yet the same fallacious kind of argument is quite generally advanced as to equipment for use in education, and too frequently accepted as valid.

We strongly feel that those who have at heart the development of educational cinematography on a scale commensurate with its importance should lose no opportunity to point out that such argument is based on assumptions that cannot be justified in the light of knowledge of the serious technical problems involved. Surely the cause of education is, in its way, as important as

that of national defence. If this be true, should not the professional educator be as particular as to the quality of the tools he uses for visual education as the professional soldier is as to the range and trajectory of his lethal weapons?

In this connection we would suggest some concerted movement of educational agencies against the legal restrictions as to fire hazard that hamper users of standard film. These restrictions are based, and quite properly, on the fact that most 35mm. film is nitrate stock. But, since safety film has now been developed till it compares quite favorably with nitrate, why not outlaw all nitrate film for projection purposes, and thus free 35mm. film from the handicap under which it now labours, as compared with sub-standard film?

In conclusion:

We are confident that the time is ripe for an era of great expansion in the use of the motion picture as an educational tool. We feel that the most important factor tending

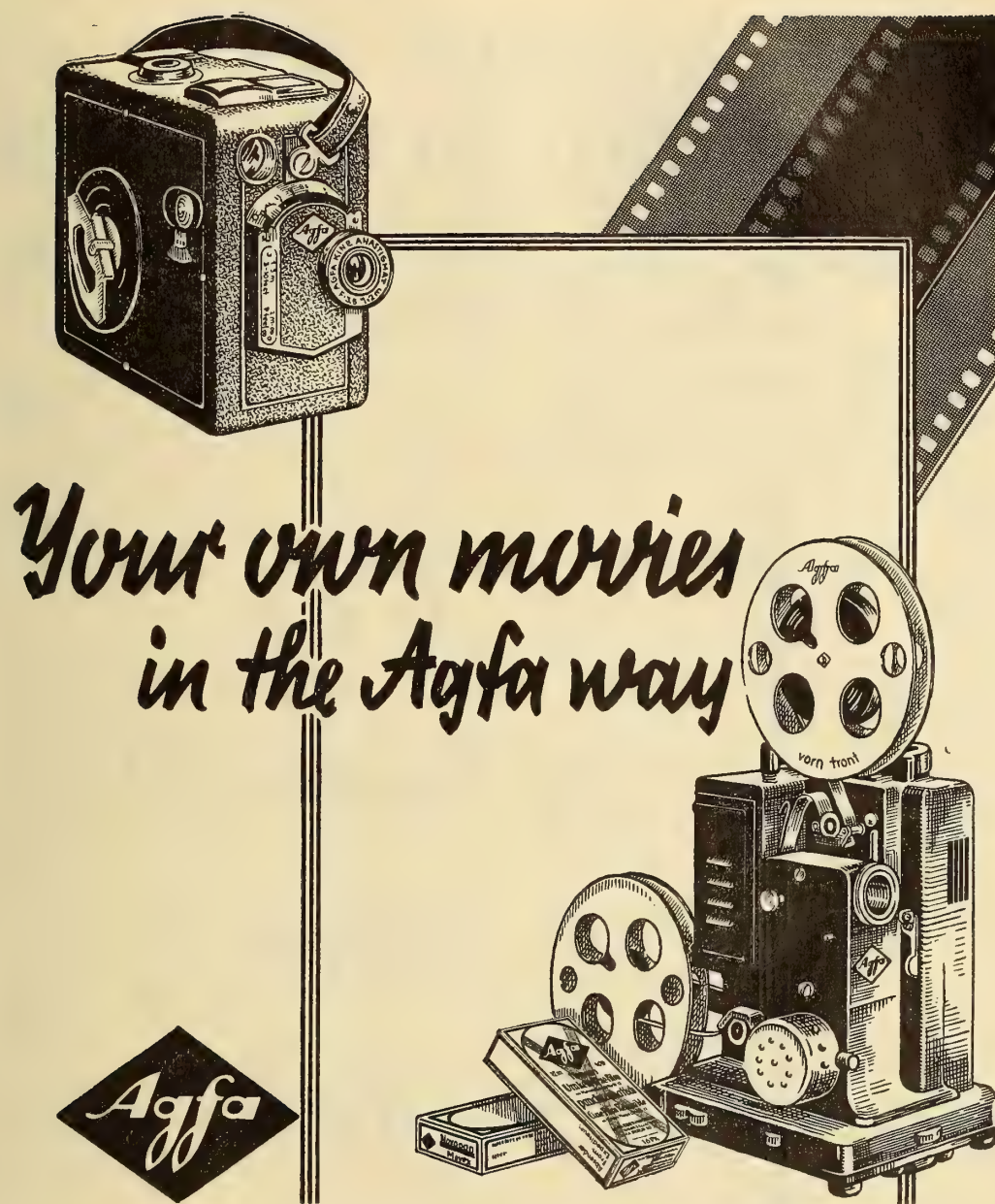
to delay such expansion is the appalling dearth of truly educational films, films intelligently designed for specific educational purposes. Such films, we believe, will never be produced successfully under the influence of the commercial studio, or even under the auspices of producers of so-called « industrial » pictures. We are inclined to believe that the truly educational film eventually must come almost exclusively from agencies devoted wholly to the public interested, from various governmental sources, including the State Universities, and from other important institutions of learning. We feel that it is to the Universities that we must look now for the development of the pedagogical film. The pioneer work that has been done in our country along this line by Yale University, Harvard University and recently by the University of Chicago, may be cited as exemplifying the type of production that promises most toward furthering the motion picture as a tool for teaching.



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INTERNATIONAL REVIEW OF EDUCATIONAL CINEMATOGRAPHY

LEAGUE
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ROME
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THE CINEMA AND POPULAR EDUCATION

BY

J. Brenier

COMMISSIONER GENERAL OF THE FRENCH BUREAUX OF THE LAY EDUCATIONAL CINEMA

I take great pleasure in writing my report under this heading. I should like to put it on record that the French Secretary of the Rome International Congress in his report « C.I.R.A.I. » of January 15th, 1934, pointed out that I had agreed to make a report on « The Cinema and Post-Scholastic Teaching ». This was not exact. At the meeting of the organizing committee of the Rome Congress of January 5 last, I agreed to speak on « Cinema and Popular Education ». This subject is logically connected with the programme of the Second Section, while « The Cinema and Post-scholastic Teaching » comes under the work of the First Section.

The Educational Value of the Cinema.

There is no use in opening up a fresh discussion on this point, in my opinion. As things stand now, no one denies that the motion picture is the most efficacious means for popular education of which we can dispose today. This is why all those who are interested in popular education are following the work of the cinema in this field.

How It Is to Be Utilized.

Before an indisputable fact, the Rome International Congress must be satisfied with simply registering the efforts made in the various countries and the results obtained. It should seek inspiration to develop common ideas and methods, as well as technical advances, whereby accords and conventions on broad lines could be made likely to prove extremely useful for the future of the motion picture.

Difficult and delicate as these problems and their solution appear when set forth in this way, it is my belief that this coordinating, collaborative effort is a necessity, for not only does it contain practical possibilities for the progress of the educational film, but also the hope of a drawing together, of a loyal and friendly cooperation between men of diverse intellectual formation and nationality, all united in a common intent to use the cinema for educational ends, excluding everything likely to create hatred or accentuate antagonisms of race, religion or ideas so to provoke conflicts of interests and the risk of war.

International Films. Having thus freed this field of action, there still remains for the educational cinema some magnificent work to do along cultural and documentary lines in general.

For instance, the film can defend the race against the perils of alcoholism, disease, overcrowding, etc. It can teach man how to use machinery, and illustrate for him the contradictions and paradoxes of a badly regulated economy. It can show us how to help support suffering, and how to derive great advantages from our efforts. It can teach us how to free ourselves from egoistic demands, and point the way towards coordinating production and consumption.

To teach mankind a knowledge of the far off places of the world in which types of men quite different from ourselves dwell, to picture for us the troubles and difficulties of their existence, and show how they overcome them, and all the progress that is made throughout the world, means building

up a fraternal spirit and a sense of human solidarity in the struggle for existence, which is the fate the large majority of mankind has to face.

To illustrate for the vast public with motion picture the marvellous places, the enchanting sites of the earth, the deserts, the seas, the villages, the busy life of the metropolis with their giant skyscrapers means teaching the beauty of nature and winning admiration for it, means showing the patient efforts of the citizens of the modern world towards the creation of a new and better civilization and the creation of means to enjoy it.

To give children and adults a knowledge of life and of the strange and multiform denizens of the earth means helping them to understand the mysterious laws of the instincts which guide created beings in their incessant labour of procreation, being born, living and dying. It should also teach us that man's intellectual superiority imposes on him the obligation of being good towards those who suffer.

The recreational picture which can raise a laugh and create that mirth which is so necessary for both children and grown-ups signifies rounding out and completing that universal educational work which comes within the scope and capacity of the motion picture.

Towards an Ideal. Shall we realize our ideal one day? We must not doubt it, and it is our duty to consecrate all our efforts to that end.

There are doubtless many obstacles in the way, which must be overcome. Among such obstacles, we may mention the position taken up already by the different nations

and the various groups which use the cinema.

It goes without saying that it is not the case to lay down rules and regulations which are likely to limit and restrict — in the national scheme — the liberty, independence, and autonomy of the various national groups. Everyone should remain free within his own organization, method, propaganda and activity in general.

Results.

Our united efforts would prove much more efficacious in the international sphere, if we were able to come to an agreement on these points:

a) establishment of a universal format for films;

b) films of world-wide utility worth producing;

c) what organs should be created to preserve negatives, see to the making of copies, their transport, etc.;

d) what measures should be taken to ensure rapid distribution and circulation of films.

On the international plane of the educational cinema, the best results would be obtained if an accord were come to on the foregoing points.

Each country, each group will no doubt continue its activity along the path it has already chosen, even though the special conditions made for each, both from the moral and the material points of view, make it impossible, at least for the present, to lay down international regulations.

It will suffice for the moment merely to examine these points.

THE UTILITY OF THE CINEMA IN THE PREVENTION AND PROPHYLACTICS OF DISEASE

BY

Dr. Corrado Tommasi-Crudeli

INSPECTOR-GENERAL DIRECTION OF PUBLIC HEALTH

THE conquests of the cinema in the departments of teaching, propaganda and popular education are becoming every day wider and better appreciated. The continuous progress made by medical science and hygiene and the practical applications thereof which are all turned to the advantage of our daily existence are easily and efficiently demonstrated by the motion picture which possesses the immense advantage of fixing the ideas projected firmly in the mind, at the same arousing an active process of association of ideas on the part of the listener.

The cinema is a most valuable means of great practical utility which we must use with the greatest fervour. Every civilization must have its popularizers, those who bring the laws and mysteries of science within the reach of all. The discoveries and inventions made in solitude and in the silence and quiet of laboratories must be divulged popularized, assimilated and rendered accessible to the great mass of the public so that everyone can know and appreciate them.

To divulge and render popular the works of science is a difficult and delicate task, just as it is difficult to bring within the reach of all the technical laboratory discovery or the abstruse theory couched in scientific language.

Our task must be to provide a simple and pleasant form for presenting theoretical and scientific notions in such a way that even children can understand them, while, at the same time, we must not go beyond the limits of strict scientific reality.

These educational hygiene pictures should

be clearly set forth and the sequences carefully arranged. Sub-titles should be simple and short, and all written in a homely style and in such a way as to meet the unexpressed but real desire of the spectators to learn without effort under the guidance of a person of intelligence and good sense.

Projections ought to be connected with the illustrious names of the scientific discoverers of the various problem treated, so that the public may know and understand the characteristics of modern civilization, and appreciate how much all comforts and social benefits, all inventions and conquests of science have cost in abnegation, study and tenacious work. These are all so many striking examples of good will and worth which are of help in the moral education of young men and certainly form one of the chief virtues of the cinema.

In the department of defence against disease, it is obviously of great utility to instruct the public, following the criteria here indicated, on the etiology of infectious and parasitic diseases, the harm they are capable of causing to the population and the knowledge acquired through scientific research on the possibilities of defence against infectious germs and parasites. A defence of this kind is rendered possible by the adoption of adequate measures of prevention and prophylaxis.

It is the highly important task of hygiene to fix the prophylactic measures to be used. They should be divided into general and particular measures. The first have a great practical value since they must always be taken into account and applied as the

base of any prophylactic action. Infectious diseases of the ordinary type can generally be traced to a large number of circumstantial factors and the influence of surroundings which favour the development of individual cases of such diseases. It is clear that in the prophylaxis of infectious and parasitic diseases we must distinguish between certain measures of a general character that should be followed in the case of any infectious or contagious disease and other steps of a quite different character which should be adopted only in the event of the incidence of specific illnesses. Such measures depend on determined conditions connected with the biology of the individual infectious micro-organisms.

These special and particular measures, which it is a matter of the greatest importance to divulge and popularize, are in contradistinction to the general measures, individual and different for each disease. The rules of individual self-defence against disease are of the highest importance for the purpose of preventing another class of illnesses, that is the so called vocational diseases, for which, just as for infectious and parasitic diseases, science is every day providing new means of defence and prophylaxis.

This then is the lofty task of cinematography placed at the service of the great cause of hygiene. It must spread knowledge, popularize scientific conceptions, bring theoretical notions within the sphere of practical application. It must teach the rules and regulations which can preserve human life from the dangers and contagions and the insidious perils which cause such misery and suffering among the masses of the people.

We should remember in this connection what one of our most distinguished hygienists Dr VALLISI has said: « Hygiene must come down to real hard facts if it wants to be efficacious ». Another learned exponent of hygiene principles, Dr RUBNER has also declared: « Hygiene is a subject matter in which theory and practice cannot be separ-

ated, and it is only of utility in so far as it is capable of effecting its purpose ».

In the field of educational cinematography, the greatest share of attention should be given to illustrating the pathogenetic and defensive mechanisms of individual infectious, parasitic and vocational diseases, according to the most recent discoveries of science.

These cinematographic illustrations ought to be explained to the people in the simplest, clearest and most comprehensible fashion possible so that everyone may know how useful it is to be in a position to defend oneself or one's family against the threats of a hidden danger. The simplest form of technique which can very well be used in all cinematographic manifestations of this kind should be followed. It should consist in taking examples from every day, ordinary existence, for this is the most simple and most convincing form of demonstration. In other words, the projection ought to show the incidents and contingencies of real life with man in the centre, hygienic man as a model to be followed. In this way alone, can such illustrations become truthful and instructive.

To go into details, it should be noted that parasitic and vocational diseases also offer an important field for cinema propaganda.

In fact, various diseases produced by external parasites, are, as Prof. ABBA has so well pointed out, the consequence of carelessness and self-neglect, when indeed such diseases cannot be laid to the door of bad upbringing and parental neglect.

In times past, the ignorance of the people used to include pediculosis among scholastic diseases since it was found to be very common at the school age. In reality, individual hygiene has shown us that the trouble can easily be avoided by simple personal cleanliness of the body and especially the head, as well as of course, of the clothes.

Other diseases caused by internal parasites such as ascarides, taenia to mention a few of the commonest, are illnesses which

can safely be avoided by the exercise of an education in the principles of hygiene, since if we know the origin and the mechanism of their incidence in men, it is easy to avoid the risk of infection.

In the case of vocational diseases, it is only too often the case that the inception of the malady depends on the workers' ignorance, excessive confidence, or carelessness of danger which prevents them from taking the proper precautionary measures of defence. An example will illustrate what we mean. In the case of vocational saturnism or lead poisoning, we have a magnificent opportunity for instructing the mass of workers engaged in this dangerous trade on the perils of lead poisoning. Cinema lessons could show them the proper way to carry out their various operations, the precautions that should be taken, typical cases of lead poisoning, with an exposition of the symptoms, the cures and all the methods and systems for avoiding risk. Attendance at such lessons should be made obligatory for lead workers and all those who through their vocational exercises run the risk of getting lead poisoning.

As regards infectious diseases, the motion picture should be widely used, not only in elementary and secondary schools, but also in universities, to explain mechanical ideas and processes in their practical applications.

There is no need here to go into the matter of the various characteristics of educational cinematography as practised for various classes and ages and the best means of carrying out motion picture lessons. It may be said in general that a well ordered, clear, truthful and fundamental exposition based on examples from life should be the type of projection aimed at in lessons given for instructing persons in prophylactic measures against infectious and vocational diseases and disorders. It will always be best in projecting pictures of this kind to follow a logical and invariable system of distribution of the material, a kind of fixed plan or plot to carry the various points and scenes of the exposition and demonstration. This

is not difficult since the special prophylaxis of infectious diseases is based on a constant sequence of facts common for all cases and persons.

In view of the fact that infectious diseases are transmitted from the sick to the healthy person directly or through the medium of materials objects or vectors, the successive problems are constantly the following ones: in what manner does the sick person, or the disease-carrier prove dangerous to the healthy individual, what ways and vectors of approach are open for facilitating the increment of disease? It is on a framework of similar inquiries that the whole mechanism of the most dangerous infectious diseases can be examined from the prophylactic point of view and the necessary precautions and remedies excogitated.

A good example of the treatment and precautions that can be used for avoiding infectious maladies by the public is the treatment and prophylaxis of typhoid fever, which still claims far too many victims.

If we are to overthrow this disease and complete the attacks that have been made on it in medical and hygienic quarters, there must be a great campaign of propaganda among the public. This propaganda should chiefly be undertaken, or, at any rate, should have its central foci in the elementary and secondary schools, in workmen's spare time and leisure associations and clubs, and in women's organization of various kinds. The motion picture should be the means used for explanation, illustration and demonstration. It is a surer and better means than lectures, and can reach lower classes of society, since it is more immediately attractive in its appeal and easily grasped. The public should be taught how the germ of typhoid is developed and spread, how it penetrates into the healthy human organism, how man can be defended from it both individually and socially. The great benefits deriving from cleanliness of the hands, from boiling milk, from washing vegetables, from a careful choice of food-stuffs, from keeping flies away from eat-

ables and from personal and home cleanliness should be duly illustrated and stressed.

What has been said of typhoid is true of other infectious diseases, in which the transmission of the infection, apart from direct contact, can come through materials and objects and other avenues of approach. These vectors or avenues of approach should be carefully explained and the methods for blocking them illustrated. Thus there is the question of the domestic washing and of one's clothes in certain infections, household utensils, glasses, cups, knives spoons and forks and other objects of table use in cases of tuberculosis, scarlet fever, diphtheria and typhoid. Then there are also children's toys and workmen's tools to be considered as disease-carriers and also surgical instruments in diphtheria, syphilis, sepsis, books in the case of scarlet fever and tuberculosis; the rooms occupied by the patient in scarlet fever, erysipelas, small-pox, consumption; food, drinking water, fruit, vegetables, shell fish, etc. in intestinal disorders. In addition, there are avenues of infection like flies in cholera, epidemics and typhoid fever mosquitoes in malaria infections, lice in typhus and fleas in the dissemination of plague.

The foregoing considerations lead us to conclude that the motion picture should form part of the normal outfit of every school, whether elementary, secondary or university.

Motion picture propaganda should also be effectuated at workmen's spare time institutions, in women's organizations, in clubs factories, workshops, large business houses and municipalities generally.

The material for such propagands should be chosen by proper centres of coordination and distribution, whether governmental or semi-governmental. Social providence and thrift can also be taught under these conditions.

The workings of such centres can, in Italy, be rendered easy and immediately profitable through the activity of a magnificent existing organ which is perfectly and admirably equipped for the task. This is the LUCE Institute, which already possesses a well stocked repository of cinema material for propaganda purposes.

This centre to which we have referred could also very well undertake the exchange of hygiene propaganda films with other countries, taking advantage of the customs exemptions granted to the International Institute of Educational Cinematography of the League of Nations, at the same time keeping an up to date catalogue of the pictures issued by the various nations on hygiene and health and social providence. Such a catalogue would be most valuable for future developments of this sector of activity which is such an important part of educational cinematography.

THE CINEMA AND THE CAMPAIGN AGAINST THE DANGER OF VENEREAL DISEASES

BY

Dr. André Cavaillon

CHIEF OF THE CENTRAL SERVICE OF PROPHYLACTICS OF THE MINISTRY OF PUBLIC HYGIENE -
DELEGATE OF THE FRENCH NATIONAL LEAGUE AGAINST THE DANGER OF VENEREAL DISEASES.

It is no longer necessary to point out the importance of the cinematograph in educational propaganda, nor do we intend to dwell on this point. But is it possible to make use of the cinema in the educational propaganda against the danger of venereal diseases? This is a problem of quite another order, because in this field many are of the opinion that it is a very delicate task to deal publicly with questions which are only too frequently both unpleasing and equivocal.

Yes, these excellent advisers say, you can carry on public education by means of the cinema in all the other branches of social hygiene, but you cannot when it is a question of syphilis. The public, they assert, is not prepared for such thing; you will arouse suspicion, attract attention, cause scandal or at the very least you will certainly talk in vain.

It is undoubtedly a very delicate affair to speak of syphilis, and everything depends on the way we do it. We have often had to suffer from the effects of certain lectures in the course of which some zealous propagandists had spoken of venereal diseases in terms that were ill suited to the audience present. But as a matter of fact, we soon realize that when these excellent counsellors declare that the public is not yet prepared to see syphilis treated by the cinema, it is they themselves who are not ready to hear it spoken of, only they fear to confess the fact. They generously attribute to the general public an opinion which it does not hold and which they themselves blush to acknowledge.

In any case, in this as in every other question, it is experience alone that can guide us. Any opinion is permissible until experiment has shown, definitively and without possibility of mistake that the opinion is wrong; in which case there is nothing to do but accept the fact, whatever it may be. At one time, in France, it was forbidden to speak of venereal diseases through the cinema and the censor was against any presentation of documentary or dramatic films which treated of syphilis, no matter how this was done.

To overcome this conspiracy of silence, it was necessary to have recourse to extreme measures. One day, the President of the Republic having inaugurated the new premises of the Prophylactic Institute, the ceremony was shot for the news-reel and was afterwards projected without arousing the slightest protest, the sub-titles having been prepared with great care.

Later on, for months and months, the propaganda service arranged for the filming of news-reels of the numerous inaugurations of anti-venereal prophylactic institutions which began to be formed in all parts of France. Not a single protest was raised; the public was quite willing to be kept informed of the prophylactic effort that was being made, in the same way that it was kept informed about any other form of social activity.

Let us return, however, to the beginning of the anti-venereal education propaganda by means of the cinema. It is obvious that the main reason why we were at last able to succeed in this was the fact that the ban of

silence had been lifted all over the country.

Even up to a few years ago, the hygienist found himself, in many cases, facing not only negligence or red tape but also a determined opposition to any kind of organized and systematic teaching.

In fact, both in educated and in other circles, we were faced by a kind of insurmountable wall whenever we tried to deal with the subject of venereal diseases. In practically every family, parents and teachers maintained absolute silence on this subject.

Family reviews dealing with hygiene, which published information and articles on every other problem in this province, refused to accept contributions referring, even with the greatest prudence, to the subject of venereal diseases.

Fortunately, that state of things has come to an end. Those who have not yet made up their minds on this subject are at least ready to consider it, and those who still refuse to allow the problem of venereal diseases to be dealt with under the same conditions as other problems of social hygiene are at least willing that young men and girls should be initiated in regard to its difficulties.

The greater number of parents, however, although accepting the principle and insisting that they alone are qualified to instruct their children, are apt to wait for a suitable occasion for doing so, and to put off the subject from day to day in their embarrassment in dealing with such a subject, so that in the end they do nothing.

How are we to reconcile this need of a warning with the respect due to one of the finest feelings of infancy and youth, the pure faith that lifts fathers and mothers learned and respected teachers above all physiological matters?

A few years ago we wrote in the *International Review of the Educational Cinema* that a suitable film is undoubtedly the most delicate means for educating a youthful mind. By its means we can avoid putting either parents and masters on the one hand

or children on the other into an embarrassing situation. The cinema presents nothing but pictures which show life to a young man, who will first retain the impression received and will afterwards be gradually influenced by the long and necessary work of mental penetration and adaptation.

It is life which will teach him this lesson and not he whom, in his faith, he places above all human weakness.

How are we to make the films which are to illustrate the danger of venereal diseases to the public?

We do not hesitate to answer the question by asserting that there can be neither standard films nor films of a single type.

There must be, indeed, as many kinds of film as there are different publics, which cannot all be warned in the same fashion. The sailors of a ship sailing for a stay of months or years in the Far East, the young recruit entering barracks, the young woman undergoing her training as a teacher, the young lad just leaving college, the nurse training for work in social assistance and the great mass of the public formed of old and young, parents and children, all need their special kind of film.

The film, like the lecture, must be suited to its audience; we must have a complete scale of films.

An attempt to educate all in the same way is the greatest mistake that could be made.

Let us consider, first of all, what sort of film should be prepared for what we may call the « great public ».

It is obvious that such a film should make evident the possible risk of a simple kiss, the serious danger of making suspicious acquaintances, the harm that a neglected attack of syphilis may cause, the terrible law which afflicts the descendants of a subject suffering from neglected syphilis or one who has been imperfectly cured, and also the resources of modern therapeutics and the certainty that a perfect cure will result from immediate and able treatment and the proper care of a good doctor, pro-

vided the patient does not neglect his own part of the treatment, but continues it for the necessary time.

The film must have human interest and must not contain any scenes that are liable to make a painful impression. The scenes must be of a kind that can be shown to young men and girls, or mothers, and that could not in any case be discouraging to a possible sufferer from the disease who might be among the audience, but should put him on his guard and instruct him. Other conditions may be fulfilled according as the film is a documentary or dramatic picture.

The film presented by the Propaganda Commission of the National Office of Social Hygiene, which illustrates a lecture given by Dr. RABUT for the French National League against the danger of venereal diseases, seems to us a typical documentary film.

But it is not the documentary film only that must instruct the general public.

It is infinitely better, nine times out of ten, to instruct the latter without giving it the impression that it is receiving a lesson, and it is much more effective to have thousands of persons flocking to see a film in the ordinary way and paying for their seats, quite unconscious of the fact that they are looking at an educational film, than it is to get a few hundreds of persons together, with difficulty, to see a film which is admittedly a purely propaganda film.

On the other hand, although dramatic films of this kind are not easy to make, they can be made, as experience has shown.

From the very beginning, excellent work has been done in France in this field by Dr. DEVRAIGNE, head physician of the Lariboisière Maternity Hospital, the film being prepared for the screen by M. BENOÎT-LÉVY.

All those who have seen the film, and they number some hundreds of thousands, know that it is called « The Three Friends », and everyone is agreed that it has all the qualities required in an educational film.

I have already laid stress on the fact that this film illustrates in a surprising way the possibility of making known everything, of saying and indicating everything on the screen while preserving the utmost delicacy in every scene.

It deals mainly with hereditary syphilis. The idea which the film endeavours to impress on all, and which, if understood and followed, would save the lives of thousands of children in France every year, is this: if you are affected with syphilis, even though you had it long ago, if you have not been properly cured, if your parents suffered from it and were not cured completely, you will certainly bring into the world stillborn children, cripples, diseased children, perhaps even monsters.

There is one thing only that can prevent this disaster: have yourself examined and if necessary undergo treatment in a hospital or social hygiene dispensary, or even under your own doctor. This should be done when there is the slightest doubt, or better, even though you have no suspicion of there being anything wrong, because one can never be sure of one's ancestry. I do not think it would be possible to carry out cinematographically this hygienic advice, which would save some thousands of youthful lives, in a more feeling, subtle or profitable way than has been done in this film, « The Three Friends ». The consultation at the hospital for the young mothers and their babies is a masterpiece of feeling and truth.

Nor must we forget the representation of the nutritive and microbic exchanges between mother and child before birth, which has been given in M. MOURLAN's animated cartoons.

The music is stopped; in solemn silence the audience follows in outline on the screen the contagion that passes along the veins and arteries to the foetus, when the mother is diseased, by the work of treponemes.

It is with a genuine feeling of relief that we see the effects, still sketched in out-

line, of the treatment which first neutralized and then destroys the dangerous microbes. The hall resounds with deserved applause.

This film was produced at the request of the Ministry of Hygiene for protection during the educational propaganda campaign organized in France on a regular and permanent basis by the National Office of Social Hygiene, the Prophylactic Service for Venereal Diseases and the French National League against Venereal Danger. It was to be projected before the general public, at meetings, to sailors and students, factory girls, the young women attending women's clubs, etc.

From the moment of its recent presentation at the Sorbonne by Professor COUVELAIRE before M. A. Fallières, Minister of Hygiene, it had the greatest success, because this was the first time that a social study on hereditary syphilis was made in the vivid form of living history and not according to the dry formulae of a documentary film.

But our idea was to present the film at lectures, that is to say, to much smaller audiences than are to be found in the ordinary cinema; and this is where our story begins.

This being our idea, it was with a certain astonishment and even some with some scepticism that we heard, some days ago, that the manager of a Boulevard cinema who had seen the film by chance had considered it likely to interest his usual audience.

But our scepticism had to give way when we saw in the daily paper the announcement of the programme containing « The Three Friends », just in the same way as such programmes contain the announcement of a comic American film or a « yellow film », followed in this case by the flattering comment, « very special and interesting film ». What we wanted to know was to what extent the public frequented this cinema while the film was on and what were its reactions and judgment.

The best way of finding out these facts was to go there ourselves. As soon as we reached the entrance to the cinema, where

a poster clearly stated the title of the film, with the slight alteration « There Were Once Three... Syphilitic Friends », we saw that an enormous crowd was entering, and shortly afterwards the projection began in a theatre packed with an audience that followed the film religiously for an hour by the clock, without laughing or weeping or yawning, without giving sign of the least boredom, but indeed, manifesting the liveliest interest. All this, too, for a film they had paid to see, although we would willingly have paid them to come provided they were in sufficient number and attentive.

What kind of audience was this, which understood and was moved by the film?

It was the usual cinema audience, from the poorest to the most elegant in the boxes, young men and women, fathers of families, old people.

There was not a single protest, not a snigger; it was just the sort of audience that one would like to have always.

What is the reason of this success, which will end in « The Three Friends » being projected in every cinema?

First of all, it is due to its impeccable conception and production, to the fact that DEVRAIGNE and BENOÎT-LÉVY, in their attempt to show the danger of syphilis and the way to protect and cure oneself, have been clever enough to show and say everything that it is necessary to say and show in order to convince, but not to exceed that.

Secondly, it is due to the fact that the French public is passionately interested in the cinema (as in the theatre) not only when its object is to amuse or stir the emotions, but also when it appeals to the judgment and intelligence, speaking in the language that this public loves, that is to say, plainly and frankly but without vulgarity or brutality.

A film conceived by Dr. Tartarin MALAKOWSKI deals with another side of the problem, namely the danger run by our young seamen when they land in far-off ports and, forgetting for the moment their young

wives or sweethearts, in spite of the love they feel and the promises they have given, put themselves in the way of the many dangers that lie in wait for them in the equivocal resorts and dance halls of those ports.

The picture of the young sailor's wife with her baby in her arms, or the sweetheart, watching the horizon for the sail or plume of smoke that announce the return of the loved one, are too familiar to everyone for there to be any doubt as the emotion that would be aroused by a film dealing with this subject.

The courage of young women in suffering, their power of love and forgiveness offer so many emotional themes, and the finest frame for such themes is the motion of the sea and the waves dashing against the rocky coast.

But there are other films beside the French. We have seen excellent films projected with success, such as «The Enemy of the Blood», a film which has been shown in nearly every cinema in France and has made the danger of venereal diseases, the need of combatting them and the possibility of protection known to hundreds of thousands of spectators.

So far we have spoken of films that have been produced to be seen by everyone.

We must now speak of those intended for special environments. The questions that can and must be dealt with cover a vast field. A whole film library can be formed of them by degrees.

Let us take for instance, the education of young soldiers. There is no longer any reason to keep silence or to conceal anything, and especially we must no longer keep hidden the image of the sexual organs or, more correctly, the image of their lesions. It is no longer necessary to show simply the lip chancre, we may also show a genital chancre. In the same way, we can show gonorrhea more completely and also its chief symptom.

There is also another branch of hu-

manity for which it is absolutely indispensable to have special films, namely, indigenous populations, which have not yet acquired the town mentality and whose interest must be aroused by talking in their own language, instead of just putting subtitles which they do not understand.

In an entertaining film conceived by BENOÎT-LÉVY and carried out in animated cartoon form by Mourlan, a Mohammed, strong as a lion in the beginning, agile as a panther and as a gazelle, distresses the audience as the film proceeds by a series of mishaps, which appear, at the end of the film, to be due to a neglected syphilis. Mohammed learns that he has only to submit to treatment to become cured, and shortly afterwards we see him again as agile as a panther and strong as a lion, marching with the best dromedaries and tiring them out.

It must not be imagined, however, that this film produced for the natives of North Africa could be projected in all Mussulman countries. We ourselves found that although it was excellent in Algiers and Tunis it was not suited to Cairo, the Mussulman inhabitants of which town have a difficulty in understanding the Arabic spoken in Algiers and also need films of a different type.

As we said above, therefore, what is wanted is a entire film library which must be formed by degrees and developed from day to day.

The silent film has served its turn; the public wants the talking film now. We must organize ourselves to supply it, just as we were organized to supply the silent film.

On the other hand, the problem of venereal diseases cannot be dealt with in one single film, not even in one of the great superfilms. Some of them will deal with certain developments and sides of the problem, others will endeavour to illustrate points that have up to now been kept dark. The range of subjects to be treated is very vast.

It is also necessary to do over again the

same idea under different aspects. We must not give up the idea of making another film on hereditary syphilis because there is already a perfect one in existence. It requires several blows of the hammer to drive in a nail, and we must insist on the need for all prospective parents to be cured and healthy before beginning to produce children.

Many films can be made, without fear of their being superfluous, with the object of putting our young seamen on guard against the hospitable and often infamous houses to be found in every region and port.

In how many other circles also the film could carry out its work of propaganda!

There is one very delicate point on which we feel bound today to take up a clear stand.

It is a point of pure doctrine, but a capital one on account of its practical consequences, namely, the problem of educating the public in everything connected with venereal diseases, which subject is very closely allied with sexual education. In fact, numerous educators tend to join their efforts for sexual education and anti-venereal education together. But if they are right in theory, I do not hesitate to say that in practice they are wrong, seriously wrong.

If we may say that the battle is won as far as the anti-venereal education of the public is concerned it must not be supposed that there is no possibility of a change of ideas.

There are still many who feel at bottom that the projection in public of problems which they themselves dare not face openly is an offence. They submit, because so far the films presented leave no branch open to justifiable criticism. But if the chance should offer, these persons would not hesitate to assert that anti-venereal education is useless and even perhaps scandalous. Such a chance might be given to them by sexual education.

We can say this with an easy mind because, as far as the writer personally is

concerned, he is in favour of sexual education. He is not at all of the opinion of those who want silence kept on this subject, but thinks that it would be well to speak clearly and freely to young people of both sexes, not only of their puberty, but also, and even more necessarily of sexual problems.

« They teach us how to live when life is ended », said Montaigne.

The personal opinion of the writer of this article has nothing to do, as regards this particular point, with the way of acting of those whose duty is to carry on the anti-venereal campaign.

We ask ourselves whether or no anti-venereal education should be incorporated with sexual education.

It is obvious that there should be no delay in the latter case, but that every means should be used to convince those opposed to sexual education; it will not be easy, for many reasons, to win this battle but in any case we must engage in it. In the former case, on the contrary, we may limit ourselves to arousing interest in the anti-venereal campaign; there is no need to teach young people genital anatomy and physiology to make them aware of the Celtic diseases.

Now, our opinion and conviction on this point, formed already for some years past, is just this. Why knock our heads, then, against those very tendencies which, although accepting the idea of venereal education, are absolutely and definitely hostile to any kind of sexual education?

Why insist on joining the two problems together?

By doing this, we are almost certain of making it impossible to continue our work of anti-venereal education. We are not speaking lightly, and we know by experience that some lectures officially intended for future educators were permitted as long as what was aimed at was to put the future educators on guard against the venereal danger, but they were at once prohibited when the organizers of the lectures, profiting by the authorization granted, tried

to combine an anti-venereal lecture with one on sexual anatomy and physiology.

If the problem appears under this aspect from the general point of view, it will be the same from the cinematograph point of view.

We do not in the least see the advantage, for the anti-venereal campaign, of showing the anatomy and physiology of sexual organs at the cinema, even schematically.

It could be done, certainly, in spite of the difficulties in the way, which in our opinion are not insurmountable; and we have seen some films, especially foreign ones, presented with great refinement, which we consider could be shown to boys and girls, from the age of puberty, without the slightest inconvenience. But since this is not the general opinion and since it is not indispensable to anti-venereal edu-

cation, why run the risk of having any attempt at such education forbidden by insisting, for purely doctrinal reasons, on giving the sexual education at the same time as the anti-venereal?

In our opinion, the mere posing of the question provides the answer to it.

But whatever may be thought on this particular point, we shall never tire of asserting that the cinema represents one of the best means at hand for anti-venereal education; a much better means than the lecture and easier to use than the radio; and its value cannot but increase through the infinitely greater possibilities offered by the dramatized talking film.

We must recognize that from now on the cinema is the best means to use for popular education against the danger of venereal diseases.

THE CINEMA, HYGIENE AND PREVENTION OF DISEASE

BY

Lucien Viborel

SECRETARY GENERAL OF THE PROPAGANDA BUREAU OF THE SOCIAL HYGIENE SERVICE
OF THE PUBLIC HEALTH MINISTRY

Propaganda by the Educational Cinema for Hygiene and Prevention of Social Diseases.

The propaganda work carried on by the Educational Cinema in the interests of hygiene and the prevention of social disease increases year by year. We propose to offer here some incontestable proofs of this fact, at the same time expressing all the faith and trust we have in this powerful means for spreading a knowledge of general information.

Whether we desire to render scholastic teaching more concrete and to allow the elementary and rural schools to profit by the discoveries made with the use of the microscope in scientific laboratories, or whether we are anxious to place before our children's eyes those portions of the globe it will never be their fate to see, or whether we wish to furnish workers with that minimum of culture to which Madame DIEHL so eloquently referred at the Rome International Cinema Congress and the International Women's Council or whether we seek to help mankind to avoid the perils and scourges which menace them or to improve their future, it is in every case to the motion pictures that we must have recourse.

As far as we ourselves are concerned, we employ the cinema in a quite limited and definite manner, that is, for spreading a knowledge of hygiene and social disease prevention.

Teaching and Educational Film.

There is no need to insist on the value of the teaching film that accompanies and completes the teacher's lesson, but we hold

it to be useful until the student becomes a grown man when we must use the educational film to spread notions of hygiene and prophylaxis among the masses.

The educational film, we have had occasion to notice, has been used by the lecturers of the General Commission of Social Hygiene, at the meetings in villages in projections planned by various agricultural societies, in the workshop and factory, in the barracks and on board ships of the navy, where it is advisable to teach the men how to defend their health from dangers and take advantage of common experience.

We had the honour three years ago to discuss the matter of teaching hygiene in the schools by means of the motion picture. We repeated what Professor Léon BERNARD stated with all the authority at his command: «it is a manifest truth that hygiene cannot become a regular thing in a people's habits unless it has first become implanted in their spirits, incorporated, so to speak, in their psychology. Nothing can be hoped from coercive measures in this direction, nor from too theoretical teaching. What we must do is to show the disadvantages which derives from a lack of hygiene and the individual and general benefits which hygiene brings in its train».

No other medium can prove so effective for this kind of instruction as the cinema, which, by means of its documentary films, can render notions which have hitherto remained obscure and difficult luminous and within the reach of all, at the same time making hygiene seem an attractive subject by romance and anecdotal pictures.

« That will be a fine day when the student will be able to see the fields and meadows with their flowers and fruits pass before his eyes and pass so slowly that he will be able to have full enjoyment of them », wrote Lucien DESCAVES. This and many other things, useful and beautiful, have been brought by science within the reach of students since then.

Our Symposium. The replies to the extensive symposium which we organized among the teachers of France and Algiers to learn their views on the value of the educational cinema in the matter of the teaching of hygiene have allowed us to state, it may be remembered, that the corps of teachers in France has been quite won over to the educational cinema.

« The universal language of the cinema », wrote the Inspector of the Accademy for the Ardennes, « has imposed itself on the world of education. The motion picture strikes men's mind, and ends by convincing even the most incredulous.

« The attention and the intelligence are awakened by the motion picture and the memory is enriched. The film is one of the most powerful means at our disposal for affecting the imagination of young people and adults ».

This and similar remarks have been addressed to us from all the departments of France and Algiers.

The National Congress of the Educational Cinema in Paris.

In the month of September 1931, there was organized at the Paris Repository a national

Congress of the Educational Cinema having for its programme the development of the teaching film and a study of methods of education.

A detailed and carefully elaborated questionnaire was issued to all users of the film repository through the agency of the regional repositories and bureaux regarding the employment of the teaching film. The inquiry made under these conditions corrob-

orated the results which had already been obtained. Optimistic replies followed in rapid succession, assuring us that « the film makes a lesson profitable », « develops visual observation », « fixes the attention », etc., etc.

We will not go further into the matter of the study which we have had the pleasure of presenting you, and will confine ourselves, in the matter of the teaching film, to that limited experience we have of it as employed by the General Propaganda Commission of the Bureau of Social Hygiene and the Propaganda Commission of the National Committee of Defence against Tuberculosis.

Educational Cinema and the School.

The agents of the General Propaganda Commission of the National Defence Committee against Tuberculosis are the delegates and lecturers who travel through France in a vast crusade of hygiene and health propaganda in which, in our opinion, the greatest efforts should be made to interest children. We should like to see our scholars adepts and experts in matters of hygiene.

In 1933, one thousand nine hundred and seventy-two lectures and talks were given in the schools on the subject of hygiene with suitable accompanying films by our lecturers and delegates.

The lectures were given not only in the elementary schools but also in normal institutions, *lycées* and colleges for young boys and girls.

Sometimes, we have been asked to make a special effort on particular lines. Thus last year, 13 lectures with motion pictures and tables and statistics on child upbringing and culture were held in the elementary schools for girls in the department of *Alpes Maritimes*, according to requests specially made by the department in question.

For three months in the year, an automobile group with motion picture equipment is placed at the disposal of the Alsace and Lorraine Association by the General Prop-

aganda Commission for the purpose of carrying out a vast department campaign in *Haut Rhin*, *Bas Rhin* and the *Moselle*.

In agreement with the Alsace Association, lectures have been organized in all towns or villages with not less than 1000 inhabitants, and the scholars have been instructed by means of the cinema and the work of the lecturers in such subjects as the fight against tuberculosis, general hygiene and child rearing.

Educational Scholastic Films.

What kind of pictures have our lecturers provided for the scholars? There is no need to enumerate at length the films projected. We will confine ourselves to remarking that the Film Repository of the National Bureau of Social Hygiene and the National Defence Committee against Tuberculosis possess 50 films dealing with general hygiene, as many again on tuberculosis, a dozen pictures on rearing children, three fine sound films on infancy and the struggle against tuberculosis. We have also 210 slides for fixed projections on general hygiene subjects, 107 anti-tuberculosis slides, seven on child-rearing and three illustrating the perils of alcoholism. We may be asked if the results of our efforts are visible. One of our delegate lecturers writes us as follows:

«Our lectures and projections have clarified many ideas learnt in the class-room but not properly assimilated by the pupils. Many of our teachers have assured us that their pupils have opened astonished eyes in grasping such facts as the existence of life in microbes, the circulation of the blood in the human body, the composition of the blood, the functions of the lungs, contagion through microbes, the pollution of water.

It was also observed and remarked upon that in rural districts visited on more than one occasion by our lecturers the children, on the later visits of our delegates, presented themselves at the projections much better dressed and with much more attention given to their persons. In many places the

young folk turned up in their Sunday best; hygiene is not therefore an empty word for them. It comes to mean: cleanliness, fresh water, sun, pure air, physical exercise, repose, etc.».

This is an expression of the truth. Neither in the village nor in the town does the scholar now sit down to table without washing his hands. He insists on having a tooth brush and washes and soaps himself thoroughly from head to foot.

This is a great advance which must certainly be attributed in large part to these lecture tours helped out with film projections which bring an air of holiday to the schools and teach the pupils a useful lesson through a vehicle of *novelty* and entertainment.

«I have the honour to inform you», writes the Academic Inspector for the Alpes-Maritimes department, «that the delegate lecturer of the General Propaganda Commission of the National Bureau for Social Hygiene carried out from January 10 to January 31 a lecture tour in the various scholastic establishments of the Department of the Alpes Maritimes.

«His lectures, which were accompanied by cinema projections of a documentary character, were followed with interest by all the pupils who derived useful information and valuable advice from them.

«The reception was everywhere excellent and sometimes even enthusiastic.

«Lectures of this type perform a work of a high moral and social nature, and merit every possible encouragement».

We could multiply this kind of evidence, and the admirable and much improved health of the pupils is one of our lecturers' reward for their labours.

Teaching of Social Hygiene by the Educational Cinema.

We have already said that our field of activity in using the educational film for social hygiene goes far beyond the school.

It is a necessary thing that both peasant and townsman, factory worker and clerks

should be prepared to enter the campaign against social diseases and be ready and able to use all the proper precaution against them.

This is why in all social *milieux* and sometimes even by request of corporative associations, bodies of teachers, etc. we have pursued our educational lectures with the agreement and often under the direct patronage of the various administrative education authorities of the medical faculty of the departments.

We have in this way been able to introduce the educational cinema into the campaign against:

1) the *following social diseases*:

Tuberculosis (in association with the National Committee of Defence against Tuberculosis — 12 films of which two sound films);

Infantile mortality and mortality of children in childbirth (in association with the National Infancy Committee — 15 films of which one sound film);

Syphilis (we will give details of this campaign later) 15 films of which three sound films;

Cancer in connection with the French National League against Cancer (one very fine picture);

Alcoholism in connection with the National anti-Alcoholism League (eight films and one animated drawing);

2) *in the campaign against contagious diseases*: typhoid fever, diphtheria (one very successful film on this subject) small-pox (one film);

In addition to this, we have organized each year campaigns against slum dwelling and against rats (20 fixed slides) harmful insects (5 films);

in favour of good drinking water and city water brought in conduits from reservoirs, and, indirectly, against the risk of typhoid fever (three long important films);

in favour of good dental hygiene (one film);

in favour of pure and Pasteurized milk

and healthy milk diets in courses for social hygiene and agricultural questions (4 films);

against malaria and mosquitoes (one film);

in aid of birth increase (one film) in association with the National Alliance for the increase of the French population.

The Motor Groups of the General Propaganda Commission of the National Social Hygiene Bureau.

If you happen to travel in France, you will be likely enough to encounter in your motor rides a truck bearing these initials: O. N. H. S. It will belong to the auto-group of the General Propaganda Commission of the National Bureau and Committee of Defence against Tuberculosis and Social Hygiene, which is carrying on its crusade for better social health throughout the length and breadth of the country.

Eight of these auto-groups travelled through France and French North Africa with a carefully prepared and executed programme.

As we have already said, the delegate lecturers of the Propaganda Service make it their work to throw all possible light on the principles of hygiene and the best means of applying them for combating the major scourges which afflict humanity, such as tuberculosis, infant mortality, cancer, venereal diseases, slum dwelling, etc.

The lectures are given before mothers of families and young people. The school is used every day for lectures of this kind, and the instruction and information is adapted to the audiences.

The motor-trucks of the Propaganda carry, besides the lecturer, everything necessary for giving cinema shows under all conditions, even in the open air when the weather permits.

Since 1932, the National Bureau, always anxious to keep up to date, provided the Propaganda Service with portable sound and talking film equipment. The plant comprises the following:

one projector with amplifier and loud speaker;

one gramophone for accompanying a silent film with music;

one microscope allowing the lecturer to use the loud speaker for his comments to a silent film or for outdoor projections in summer.

In other words, the equipment contains three distinct apparatuses: sound and talking projector; gramophone and loud speaker.

The Talking Film. We should like to make a few remarks on a form of propaganda which is still in its infancy.

The use of the sound and talking film confers an undoubted superiority on all efforts at popular education. Films of this type are successes for the very reason that they are talking films, that is, they teach the audience, without tiring it, everything it wants to know. A talking picture works out its theme to the end and with an authentic rendering that it is impossible to deny. When the cognitions to be imparted come direct from those who are responsible for them an atmosphere of veracity is set up, and a current of sympathy is established between the spectator and the unseen but heard actors.

What a tremendous repercussion Pasteur's theories would have had if the illustrious savant had been able to make a personal exposition of them himself to the public by means of the talking film.

In France this innovation of the sound and talking pictures has chiefly found its openings in the country where it has yielded surprising results for it is still something of a rarity in the villages.

In certain regions where a few years ago the lectures only gathered a restricted number of listeners, the present day halls prove too small for the crowds that seek to find admission to the show, in this way realizing or surpassing the most optimistic hopes.

Before the organization of the automobile groups, the French countryside had

hardly been touched by the Social Hygiene Propaganda Service. Some of the larger centres occasionally received a visit from one of our lecturers. With the automobile-groups which are fitted out with everything required for giving a cinema show, we are now able to reach the most distant mountain villages or the furthest off hamlets of the plains. We may be said to have dug deep into our territory.

People of all ages attend our lectures. The rural population, among which a higher degree of comfort and ease is beginning to spread, generally keeps itself up to date with many novelties through the agency of the wireless. But for country people, hygiene is still a novelty. This is why, attracted by the talking film which is still something new in the villages the peasants crowd our lectures and projections in gratifying numbers.

Everything connected with vaccines, and preliminary symptoms of illnesses arouses their attention. « We have observed », « wrote one of our lecturers », that films on the B. C. G. vaccine, on diphtheria, cancer and syphilis were all received with the liveliest interest ».

The anti-venereal disease campaign which some years ago created such difficulties in the countryside (many small town mayors opposed it entirely) continues to enjoy the approval of the public.

The lecture on social hygiene and, where we have been able to introduce it, the lecture of a mixed character on hygiene and agricultural subjects, has become one of our customs and programme items which we should be reluctant to abandon. We continue to receive requests for a intensification of our work and an increase in the number of lectures and projections.

Laudatory testimony from prefects or inspectors of Hygiene have convinced us that our long and difficult work has not been in vain.

If nowadays our peasants appreciate the notions of hygiene and preventive work against disease and social maladies, if they

insist on a proper supply of drinkable water, if they take for granted the treating of cows with tuberculin, and are accustomed to using the dispensary in case of need, we must congratulate the lecturers on social hygiene who, in their turn, will be ready to admit that a large share of the success is due to the use of the cinema and especially to the sound and talking film.

The Beginnings of the Educational Cinema in France.

Let us see the distance we have come. We can place the beginning of the use of the cinema for educational purposes to the period of the Great war. It was in the early part of 1918 that the National Committee of Defence against Tuberculosis, powerfully seconded by the Rockefeller Commission, had the merit of perceiving in a set of circumstances where a certain small amount of educational film was being used that the motion picture was capable of playing a most important role and could make hygiene an interesting and agreeable subject for everybody.

As a result of this and subsequent considerations the automobile groups toured France for five years, carrying picture projections. An unexpected and prodigious result of these tours was a powerful movement of public opinion in favour of public health movements.

We have seen that these educational campaigns continue throughout France and North Africa, thanks to the auto groups of the Propaganda Service of the National Bureau of Social Hygiene. While during and immediately after the war, educational films were very rare, this state of things has fortunately altered for the better.

The first groups of auto-cinemas carried films lent by the American Service, provided either by the Rockefeller Foundation or the American Red Cross. Then we obtained some scientific films from Dr. Comandon with enlargements of microbes and details of the human organs. At the present time, our film repository contains more than 500 educational pictures. On the subject of

tuberculosis alone, we have nearly 120 films. Some of these pictures illustrate our sanatoria, prevention centres and dispensaries and all form our anti-tuberculosis armament. Others show the prophylaxis, the causes of tuberculosis and the lesions in the lungs; others again deal with the rules and systems by following which the disease may be avoided. We have also some admirable films of child-rearing (puericulture) which arouse the interest of all mothers, while there are in the repository a number of films dealing with *venereal peril, slum dwellings, cancer, diminishing birth rate, contagious diseases; malaria, diphtheria*, etc. There are further pictures on *general hygiene, milk hygiene* and *propaganda on the benefits of water*.

We have had the satisfaction of seeing projections in the cinemas of Paris and the large provincial centres of admirable films calculated to wage a stout fight against the venereal danger. We may mention among them «There were once Three Friends», «The Kiss that Kills», «The Enemy of the Blood», and a film which has been shown in North Africa in an Arab text and version: «The Story of the Thousand and Second Night». Then there is the «Le Voile sacré» (The Sacred Veil) which is intended to illustrate the nurse's noble mission. We have again «Ames de Taudis», «Slum Souls» to use in the struggle against slum dwellings. «Maternity» is another picture with a moral beauty similar to those poetic paintings in the country which delight the people.

The educational film «The Future Mother» by Dr. DEVRAIGNE, a romantic story on the care of children and the essential principles of child rearing did not only enjoy a great success with the children, but manifested its happy influence with great benefit in workmen's quarters of the city where it was very well received.

M. Pierre MALO reporting the projection of the film wrote: «The Future Mother» was shown at Lille before 2000 women of the

linen manufacturing business and enjoyed a great triumph ».

« Out of 2000 work girls, 1600 replied correctly to the 19 questions which were put to them after the projection. All manifested a desire to see the film again and one of them wrote: « I love my child, though I have been doing things that might have killed him up to today ».

The Educational Cinema for the Campaign against Venereal Disease.

We should like to draw attention to the campaign against venereal diseases which we have been directing in collaboration with the Central Service of Prophylaxis for Venereal Diseases attached to the Ministry of Public Health (Chief of Service is Dr. CAVAILLON) and in connection with the Committee of Feminine Education, the Society for Sanitary Prophylaxis and the French National League against Venereal Diseases (Dr. QUEYRAT).

One of our specialized lecturers gives in military and naval and air circles throughout all the regions of France propaganda lectures of an anti-venereal character followed by projections. During the year in course, there were 273 of such lectures before audiences of over 113,000 persons.

We also work in close connection with the Prophylactic Commission for Venereal Diseases in the Army. A similar form of collaboration has been established between the General Propaganda Commission and the Direction of Health Service of the Ministry of Marine. Our lectures and films have attracted large numbers of soldiers and sailors called together according to a plan in the cinema halls of the military or on board ship.

The sailors of the mercantile marine have also been given the same type of lecture at Lorient and Le Havre in particular. Sometimes the directors of the big commercial steamship lines have asked us to allow their ships' doctor to comment the films for the crews.

Dr. CAVAILLON, Chief of Central Prophylaxis

Service for Venereal Diseases at the Ministry of Public Health has illustrated elsewhere the question of the educational cinema in anti-venereal disease propaganda.

The Educational Cinema used by Everyone in France for Propaganda Purposes.

While pointing out the special characteristics and the particular way in which the General Propaganda

Commission has used the educational cinema which it was also the first to adopt in public health and hygiene work, we are not going to pretend that we are the only people to make use of it.

Our country possesses at the present time departmental bureaux of Social Hygiene which undertake a campaign of lectures accompanied by educational films. Regional and departmental cinematographic bureaux are engaged in regulating for the purposes of educational propaganda the beneficent action of the motion picture.

We should like to put forward two typical examples: the results of a campaign for hygiene and against the spread of contagious diseases carried out according to our system in the departments of the Upper Rhine, Lower Rhine and the Moselle, and, secondly, the remarkable method established by the Nancy Regional Bureau of Cinema Teaching.

Note on Hygiene Propaganda by the Educational Cinema in the Departments of the Upper and Lower Rhine and the Moselle.

«The Cinema can be a marvellous educational agent to be utilized with advantage in all sections. Its importance in propaganda places it in the front rank in all programmes having as their object the popularization of notion of defence against disease. Thanks to the motion picture, the dryness of the subject disappears, the interest is aroused, the images cast on the screen define in detail the matter treated by the lectures, implanting ideas in the visual memory and a clear notion of what it is intended to teach.

« The Propaganda Committee of Social Hygiene for the Upper and Lower Rhine and the Moselle which contain a population of 1,800,000 souls, has made large use of film propaganda.

« All the lectures organized are illustrated by films. Slides are only used in illustrating lectures of the Venereal Danger for masculine audiences. Such slides generally show the lesions referred to by the lecturer.

« In the course of the last five years in the three departments of Upper and Lower Rhine and the Moselle, 28,872 films on hygiene subjects have been projected.

« The activity of the last year in Lower Rhine and Moselle shows 5595 films projected on hygiene and 187 recreational pictures. The importance of these figures depends on the fact of the collaboration of the Alsace and Lorraine rural cinema which has 320 cinemas halls spread over three departments. During the six weeks of the sale of the Anti-tuberculosis stamp, a short propaganda film edited by the Committee was shown.

« We must not fail to note that the recreational as well as the strictly social hygiene film has helped in the work against the disease. The recreational film has its own value when used with educational pictures.

« We have had wide recourse to the recreational film in this region where we organize every year, in collaboration with the National Bureau of Social Hygiene, the Tuberculosis Defence Committee and the Pedagogic Museum of Strasburg as well as some other associations, a series of tours. The programme of these tours contains a short talk dealing with the various subjects connected with the preventive treatment of disease the lecture of talk being followed by an illustrative film.

A second item in the programme consists of a comic and documentary film.

« This is a formula the worth of which has been proved for its effect on the big public, especially in country districts.

« During the course of the last tour which took place from November 3, 1933 to Feb-

ruary 10, 1934, 3 hygiene soirées were organized in the departments of the Lower Rhine and the Moselle, and the audiences totalled 6859 persons. This figure is all the more satisfactory since it is in respect of rural localities of from 1000 to 2000 inhabitants. The lectures given on the same day in the schools were attended by a total of 9935 pupils.

« The coming of the talking film has very considerably extended the possibilities of action of the educational cinema. Thanks to it the teachers who are best equipped to talk on their special subjects can address the public in the furthest off corners of our land, placing their knowledge and experience of hygiene at the disposal of a great many people.

« The use of this method, of course, means that sound and talking film apparatuses must be purchased, and these are costly. But, at the same time, there is a corresponding diminution in the expenses owing to the possibility of reducing the list of lecturers and their fees.

« Whether we are going to use a silent or talking film apparatus, it ought, in any case, to be of the best quality. It is only if it is a first class apparatus that it will be in a position to neutralize the dryness of the ordinary subjects dealt with, and arouse the interest of the spectators who must give an effort of their attention to subjects which they cannot immediately understand.

« The financial resources and the technical means at the disposal of the departmental and inter-departmental organizations do not allow of their producing films on their own account. This work should belong in all countries to a central organization having powerful means and support behind it, and also all necessary technical equipment. The country's film repositories should be furnished in this way, and constantly kept up to date with all kinds of pictures dealing with local and regional interests.

« The matter however, is by no means an easy one, for the hygiene film is somewhat difficult to produce, requiring, as it does, a

very close collaboration between the scientists, the men responsible for the propaganda or popularization side of the picture, and the cameramen.

« I should like to urge here the importance of intensifying the hygiene propaganda in rural districts by multiplying the number of villages or towns furnished with sub-standard projectors of the Pathé-Rural type. These machines are not at all costly, and can give excellent projections of sub-standard film.

« Doubtless the creation of a great number of rural districts fitted out with small machines for talking film projections would be a costly enterprise, though the individual cost of each machine is not high, but once the cinema halls had been prepared and fitted out, they could be used for other types of documentary and recreational projection. Moreover, the cost of transport of plant and material would be obviated in this way. An amortization fund would, of course, be created.

« No doubt there should be film repositories for the sub-standard films on hygiene subjects, but at the present moment such repositories are practically non-existent. The cost, however, of reducing standard size films to sub-standard is not excessive.

« The whole question wants going into, for its solution would be of immense advantage to the future of the educational film ».

The Secretary General
Dr. RODOLPHE STRAUSS.

**Hygiene Propaganda
by Film in the
East of France.**

The Regional Bureau of Cinema Teaching at Nancy has, from its initiation, taken a special interest in social hygiene.

« A special section of film propaganda of hygiene has been formed in the Bureau. The committee concerned includes Drs. SPILLMANN, Dean of the Faculty of Medicine, Jacques PARISOT, President of the Departmental Bureau of Hygiene, BENECH, Director of sanitary services of the city of Nancy, MERKLEN, Director of the Regional

Bureau of Physical Education, GODFRIEN, chemist.

« This hygiene section has planned a three grade form of teaching by lectures and films.

« First Grade: elementary courses of hygiene in the elementary schools in conformity with the official curricula. Instruction in washing hands, cleaning the teeth, not to spit on the floor, lessons in breathing and exercises therein.

« Second Grade: Talk on notions of hygiene of a rather more advanced nature addressed to the adults of a village or a town. Maternal education, infantile hygiene, tuberculosis, alcoholism.

« Reports by doctors on the talk.

« Third Grade: Additional propaganda of a fuller and more advanced type addressed to the big public of cities dealing with the chief diseases: campaign against tuberculosis, infant mortality, venereal diseases, etc. These lectures should be given in the beginning by experts of the Hygiene Commission of the Bureau or by competent persons chosen by them.

« The work of the Regional Bureau of Nancy was inspired by the foregoing procedure in the question of hygiene.

« We began at once to look for films answering our needs, and such were generally to be found in the official repositories of the National Hygiene Bureau.

« It would be going too far to say that these films are all perfect or exist in sufficient quantities. At the same time, they render an admirable service.

« We have conceived the idea, in agreement with the Departmental Bureau of Hygiene for the Department of Meurthe and Moselle to produce a film of practical propaganda for the purpose of making known to the big public the establishments created in the Eastern region for combating contagious diseases, tuberculosis, cancer, venereal diseases. It is proposed to project this picture in the large halls of the region and to insert the film in programmes of a general spectacular nature.

« This projection will be offered gratuitously.

« Up to now, it has been the First Grade films which have been most called upon. The second grade films are only used in courses for adults. With regard to the third grade pictures, they form the subject every year of a score of lectures by doctors for students, groups or associations of employes, workshops and factories. Also for the army.

« In conclusion, we will point out a special use of the motion picture from the medical point of view; that is films made in various asylums and hospices for weak-minded and insane people of our region. These pictures are not intended to educate the patients, but to amuse and entertain them.

« The programme of the film given at these meetings has nothing to do with hygiene. The pictures shown are documentaries or amusing recreational pictures, though nothing too exciting or sensational is projected. The asylums of Fains (Meuse), Corze et Lorquin (Moselle) use these films, and get excellent results from them.

« To conclude this exposition, we hope it may be possible for the Bureaux of the Educational Cinema to get some hygiene films at once and films of good quality and variety.

« Choice should be made among the international collections.

« We also hope that motions and resolutions will be passed at the Rome Congress requesting the nations to grant free circulation for films of an educational character with the obvious precautions to avoid abuse of the concession ».

(Nancy Regional Bureau of Cinema Teaching).

LUIS COLIN

Director of the Nancy Bureau.

The educational Cinema For Social Thrift. The General Propaganda Commission is far from being inactive in advocating the benefits of social providence and thrift. Its delegate lecturers set forth some admirable ideas on the

value of thrift when they commented the fine film produced by the General Conference of Savings' Banks. This picture was called « The Angel of the Hearth ». If we do not yet possess any films demonstrating the advantages of social insurance, we are of opinion that we are working to establish the best form of social providence and foresight by teaching men how to safeguard and preserve their health. Strikes, days in hospital, all the necessities required by serious illness or premature death all have one thing in common, that is, they require the expenditure of large sums of money. The most essential form of instruction in social providence seems to us therefore to lie in teaching the principles of hygiene, for if a person maintains his health, he diminished the risk of assurance in general, at the same time increasing his output of work. This is why we must make it our duty to spread as fully as possible, and with all the means in our power, notions of hygiene and prophylaxis. We repeat, we take pride in having been the first to make a systematic use of the motion picture in the department of sanitary education.

The educational cinema as an aid and illustration of social providence has inspired in our country a number of successful efforts.

The educational film plays its role: in prophylaxis, road and streets accidents; in teaching the elements of first aid.

The Educational Cinema for Preventing Road and Traffic Accidents. After an examination of this question with the authorities of the

Touring Club, the Automobile Club, the National Union of Touring Association, the Cinema Service of the Army and the big French film producing companies we are able to set forth the following data.

The Touring Club of France having observed that « nothing has been done so far to put the public on its guard against traf-

fic and road accidents, we have ourselves made a film on these lines in collaboration with the Army Cinema Service ».

This film, entitled « Code of the Road », has quite recently been released.

It is composed in the spirit suitable for all films intended for a vast public. It makes a large use of animated drawings, charts and graphs. The part dealing with traffic signals is in colours.

« The indications regarding circulation and signals are clearly explained, and the accidents shown on the screen indicate in the plainest way how it is possible to avoid them ».

In a series of short clear films known as « The Three Minute Films » (Etienne Lallier) by the Atlantic Film Co, the scenario *Danger* illustrates the dangers of road traffic.

Pictures of beautiful highways along which huge cars race at breakneck speed illustrate the continual presence of danger.

The very distinct idea which is revealed by these three minute pictures is that, contrary to the general opinion, a motor vehicle, does not stop suddenly, even when it is desired to stop it quickly. The greater, the velocity, the longer time is required to bring the car to rest. The film shows us 20 cars travelling at different speeds, and we see the distance covered by each before it comes to rest after the brakes have been applied. The greater the speed, the greater the distance required for making a stop, increasing in case of accident the risk from shock and collision.

If you tell a young inexperienced chauffeur this, he will probably listen to you with an indifferent air or he will forget what you say. If, on the other hand, you show him a film and figures and charts with proper carefully made deductions that illustrate the risks of excessive speed, the latter will remain fixed in his memory and will at the right moment bring out the instant wise reflection that may avoid an accident.

The Educational Cinema for Preventing Workmen's Accidents.

French industrial houses have already made some attempts to use the propaganda film

for the avoidance of workmen's accidents. We will quote two of the replies which big firms and syndical chambers have addressed us on the matter.

The Syndicalist Chamber of Acetylene Producers and the Oxy-acetylene Lamp trade for welding operations have sent us reports which we summarize as follows:

« In 1928, at the request of M. Frois, Technical Adviser to the Ministry of Labour, we issued a film on the prevention of workmen's accidents in the oxy-acetylene lamp business for welding, etc.

The film in question was first shown by M. Frois at the General Meeting for the Prevention of Accidents of the B. I. T. of Geneva in the May of 1928.

« Since then we have shown the film on many occasions, and have lent it free to a large number of trade schools and workshops.

« We have authorized the Miner's and Metallurgical Union to make a positive of our negative, which positive has been shown in a great number of French workshops and plants.

« A copy of our film was also purchased by the Welding Associations of the United States, and we lent the negative to the German trade to make copies of certain parts and include them in their own propaganda films for the prevention of accidents.

« Our film was also shown to the Technical Congress of the Association of French Business-men in 1929.

« We have been able to observe that this film has proved itself of the greatest value for preventing accidents, and has allowed us to obtain some most interesting results ».

The Union of Metallurgical and Mine Industries and the Mechanical and Electrical Construction Industries has reported to us:

« We have translated and adapted for

French taste two accident prevention films « Albert the Boaster » (an English picture) and « Why? ». The first picture has a romantic plot, the second is pure documentary.

« When we placed these pictures at the disposal of our industrial establishments, they were at once accepted, and the pictures were shown before about 50,000 workers and foremen, accompanied by their families. Both films enjoyed a remarkable success.

« I should like to give it as my opinion that a film with something of a romantic or sentimental plot on which the accident prevention instruction is hung has more interest for the working class public than the purely technical film ».

The International Association of Prophylaxis for Blindness is at present engaged in preparing a film a part of which deals with workmen's accidents.

The Association of French Business-men against Workmen's Accidents has joined forces with the *Masters' Syndicates Union, Technical Teaching and Insurance Syndicates* for the purpose of producing in partnership a very fine film.

In addition, we have news of a film on hooking up wagons and carriages by means of a special instrument. This picture is issued by the French Northern Railway Co. There is also a report on a film illustrating the dangers of fire and the best way to fight it. This is issued by the Paris Métro Railway, which is also preparing another picture on accidents deriving from engines and boilers using wood.

The Educational Film and First Aid. The doctor in chief of the Health Service of the Paris Firemen and Sappers has informed

us that a film intended for educating the firemen on first aid treatment for asphyxia has had a great success.

The picture is shown two or three times every week in Paris, and the provinces have begun to send us requests for it.

« This film appears to show in a much abbreviated form the technique required of first aid men in asphyxia. It has been much appreciated by Red Cross societies and sections and associations concerned with the so called « Passive Defence ».

The National Bureau of Researches and Inventions has issued a film on artificial respiration by means of the Schaefer method.

These then are some of the results obtained through our propaganda effort and the Educational Cinema for the advancement of hygiene and Social Accident Prevention.

It can be deduced from our experience that the notions of general hygiene and prophylaxis against social diseases and contagious illnesses are spread especially by means of working on the minds of the young people. For these young folk, hygiene is not merely a habit, it creates needs and wants which, when satisfied, help largely towards the physical development of youth.

Thanks to the efforts of our administrations and our big firms, social prevention is no longer a mere empty word. It is an organized reality, and the time is coming near when the world of workers will be perfectly equipped for safeguarding itself from accidents and the contraction of disease.

SOCIAL SANITARY WORK OF THE ITALIAN RED CROSS AND THE CINEMA

BY

Dr. Zeno Mataloni

HEAD INSPECTOR OF THE ITALIAN RED CROSS

THE Italian Red Cross, created for the purpose of giving medical aid for soldiers in war-time and permanently mobilized for bringing aid to the inhabitants of places afflicted by sudden calamity, has for some time past been included in the work of the State in the vast field of social welfare. This complicated and powerful organization could not remain idle, even in times of peace, in face of the necessary work to be done in preserving and utilizing the magnificent energies of our race; and it has undertaken numberless tasks in the fight against malaria, the organization of services for the welfare and assistance of the worker, the prophylaxis and treatment of tuberculosis, and infant hygiene. But it would not have been able to increase its beneficent activities to this extent without the consent and aid of the Fascist Government; no other Government has shown an example of such profound understanding of the problems connected with the health and well-being of the peoples as the Fascist Government. It was the support and help given by the Government that made it possible for the Society's enterprises and activities, which had frequently remained in their initial state of isolated attempts at aid organization, to be co-ordinated, developed and grafted on to the great scheme of social-sanitary problems laid down by the Duce for the redemption of our people from century-old scourges, for the raising of their standard of life and their association in the grand undertaking of developing a greater and more prosperous Italy.

During the development of this complicated work, the importance of the cinema as a means of instruction and education was not neglected, and the immense utility it might have in spreading the necessary rules and regulations among the people and so forming their sense of hygiene, was perfectly understood. For a long time past, therefore, the Italian Red Cross has endeavoured to utilize this means for the benefit of its multiple aims: the education of the young members of the Young People's Red Cross Society, the preparation of a nursing staff, the spread of hygienic rules, especially in the prophylaxis of infectious and social diseases, the recreation and at the same time education of the many inmates of its sanitary institutions, the propaganda of the Society's activities, etc.

Suitable material was prepared and every effort was made to use that already produced and still being produced by other organizations. We may mention, in this connection, a film entitled « The Roses of Martyrdom », which aims at making the glorious work of the Society known and appreciated; another, produced by the I. R. C. Committee of Trieste, on tuberculosis; the films conceived and produced by the Fascist Federation for the fight against tuberculosis: « Life in a Sanatorium », « It is the Human Flower that has Most Need of Light and Air », « Support the Building of Sanatoriums », « A Peal of Bells », « The Danger of Spitting »; the films produced by the General Direction of Public Health on tuberculosis, malaria, aid for suckling-infants, open-air schools, etc. An

agreement was made with the League of Red Cross Societies, which had got together an important film library with an abundance of material dealing with the protection of children, the work of nursing, tuberculosis, epidemic diseases, personal hygiene and preventive medicine. All of these films were either documentaries or based on a story or episode, and were of a character that it seemed might be usefully employed for educational and instructional purposes.

Meanwhile H. E. the General President of the Society, Senator CREMONESI, added one more to the numberless innovations and improvements made in every branch of the I. R. C. organization, namely, that of endowing all the more important Sanitary Institutes of the Society including the office of the Central Committee, with modern cinematographic sound apparatus. The network of Committees, Sub-committees and Delegations, in accord with the National L. U. C. E. Institute, formed the means of diffusion and propaganda.

The results obtained so far are not equal to expectation, the reasons being various, deficiency of film material, lack of production that would ensure a continual supply of films, the difficulty of procuring films, especially foreign ones, and of distributing them, on account of their high price and the cost of Customs and transport. We mention these difficulties, but do not intend to enter into a discussion of the means of overcoming them. This forms the basis of the task undertaken by the International Institute of the Educational Cinema, whose symposium, through its own investigations and the contributions of competent persons, will certainly result in a collection of valuable arguments on which useful and efficacious measures may be based and instruction laid down.

The President of the I. R. C. desired, for the moment, merely to contribute to the collection of some data which might be useful as a guide to the line that should be followed in the production of hygienic-

instructional sanitary propaganda and instructional films and, in order to discover the opinions and obtain suggestions from the Directors of the more important sanitary services, he asked them to conduct an inquiry from three points of view: cinematograph production intended for the general public, production intended for the inmates of sanatoriums and production intended for teaching.

The replies are unanimous in regard to the indisputable educational, instructional and didactic efficiency of the cinema, whether intended for the general public, for the sick, or for young and old.

1) Cinematographic Production Intended for the Public.

In answer to the enquiry as to what criteria ought to be used in controlling the execution of a film intended for making known the rules and regulations of hygiene and prophylaxis, the answer has been given that, generally speaking, such films ought not to be arid, didactical expositions of themes and theses, but rather a sequence of incidents linked together by some plot or scheme in such a way as to give the spectators the illusion that they are watching a recreational picture.

«The fuller and better developed in connection with all other factors is the treatment of a hygiene subject, the better success it is likely to enjoy. For the vast majority of spectators, of a cultural level, that is, rather below the average, the more the thesis to be illustrated and developed is embodied in some commonplace story of every day life the better will it be grasped (Prof. MAZZETTI, Cuasso al Monte Sanatorium).

Again, «for the public which crowds the ordinary cinemas, in my opinion, it is best to develop the theme with the aid of a sentimental or love story plot which is more certain to hold the attention of the spectators. This is certainly a method which creates difficulties because the acting and production has to satisfy two standards, an

educational and a recreational one » (Dr. MATTEUCCI-POZZUOLI, Prevention Centre).

« A subject should be treated in a realistic fashion, but within the limits imposed by art. It should never exhibit pictures which are repugnant, or go beyond the ordinary bounds ». (Prof. MENDES G., Battisti Sanatorium).

« The better a film lays bare the damage that can result from a disease in respect to our common social life, the greater will be its possibilities of beneficent influence on the spectators ». (Prof. C. MAZZETTI, Cuasso al Monte Sanatorium).

« If the photographic representation happens to exceed somewhat the limits of conventional good sense, it can effectively and advantageously be corrected and improved by the literal truth of words, that is through spoken comment, or through sub-titles cleverly interposed between the shots ». (Prof. MEZZARI, Hospital of Marino di Oltra).

What kind of hygiene pictures are likely to make the greatest impression on the public? It is the opinion of the majority of experts that the best results are to be obtained with pictures that bring out into strong relief the evil consequences of disease in families and their descendants.

All the doctors questioned considered the collaboration of the hygienist with the literary man as quite indispensable.

With regard to the question if account should be taken in the production of films of the temperament and customs of the peoples for whom they are intended, or if a type film of this kind is equally good for all countries, the general concordant reply was that a well made film is good for showing anywhere. Account should be duly taken of « the development of certain special subjects (malaria, pellagra, etc.) in which cases the uses and customs and temperament of the local populations should be taken into consideration » (Dr. MATTEUCCI).

Again, « It should be noted that there are progressive countries in which the observance of hygienic laws is now regular and customary, so that propaganda on cer-

tain lines would prove superfluous. In the same way, there do exist certain localized pernicious customs and habits which can be admirably combated by means of the motion picture » (Prof. MENDES).

Questions 7 and 8 asked whether it was advisable to project systematically short films in the public cinemas for the purpose of keeping public interest alive in the matter of hygiene and prophylaxis and if so, what character these films should have.

The proposal was generally considered to be an excellent one. According to Prof. Verdina, Director of the Climatic Institute of Eremo di Lanzo: « In view of the mentality of the public of the ordinary cinemas, the projections ought to be occasional, and not over frequent ». Dr. Matteucci, Director of the Pozzuoli Preventive Centre was of opinion that « the projections should be completed with illustrations of works effected by the Fascist Regime and by bodies whose task is to look after the preservation and increase of the race ». According to Prof. MEZZARI, Director of the Elena Duchess of Aosta Marine Hospital, « films of a seasonal character should be used, illustrating the danger and means of preventing various diseases which are especially common in certain periods of the year ». We think these replies very interesting, and especially sensible those of Dr. MATTEUCCI and Professor MEZZARI.

2) Cinematographic Production Intended for Patients.

We must point out that the remarks of the directors of the Sanitary Institutes of

the Italian Red Cross were made on two types of patients; adult sick people or nearly all adult sick people undergoing cures and treatment in sanatoriums and clinics, and delicate or predisposed children, guests of illness prevention institutes.

With regard to the questions regarding the influence of the motion picture on the general physical and moral conditions of the patients, the replies were unanimous in answering that the recreational film has

always given good results if such pictures are not too exciting or sensational and especially if they do not deal with tragic incidents or matters connected with illness in general and the particular illnesses of the patients who are spectators of the pictures. Such films, moreover, should be shown to adults and old out-of-date pictures should not be projected as the patients are apt to take this as a kind of contemptuous charity toward them » (Professor MENDES).

In the case of children, the motion picture always arouses a lively interest and forms the most desirable form of entertainment. « The picture show is always followed without any fatigue, even when the same film is shown twice ». (Dr. MATTEUCCI).

The cinematographic projection is also to be considered a useful aid in the hygienic education of the patient. According to the opinions of some, « it is of a great assistance to the doctor's work » (MATTEUCCI). According to others, it is useful « provided the projections are not over frequent and are interspersed with other pleasant subjects » (Prof. MENDES). According to prof. MEZZARI, « the motion picture ought to be an instrument of delight and recreation, even in the département of educational hygiene. Animated drawings should be used, in the case of children ».

3) Cinematographic Production Intended for Teaching Purposes.

In this group also, the replies to the questions on the utility of the cinema as an aid to didactic teaching are unanimously in the affirmative.

Prof. MEZZARI, of the Marine Hospital

of Oltra says in this connection. « There are persons who think that the rapidity of the projections, the changeful character of the images on the screen, the lack of any repetition of the subject or of parts of it that are not properly understood limit the didactic possibilities which were dreamed of when this powerful means of spreading ideas first appeared on the horizon.

« I am of the contrary opinion, especially when the film is employed as a supplement or complement to a course of lessons. The projection of a film lends something for didactic ends which neither words nor books can give. The future task of the film should be to complete, in a systematic way, these two methods of didactics. A lesson, especially if it is given by a person of limited powers of communication, tires and does not hold the audience. The motion picture, on the other hand, securely holds everybody's attention. The choice of photographs and animated drawings seems to me a mere matter of detail to be decided according to each particular case, subject and moment for projecting a given idea ».

Other medical men who were questioned proposed the use of photographic film and animated drawings together or in connection; some doctors favoured the slow motion projector.

These are the summarized results of the symposium conducted by the Italian Red Cross. Owing to the importance and comed as forming a notable contribution to the questionnaires, the replies must be considered as forming a notable contribution to the First International Congress of the Teaching and Educational Cinema.

SPORT AND THE CINEMA

BY

Dr. Franco Ciampitti

THE cinematograph and sport, which are undoubtedly two of the most striking phenomena of our epoch, have so far met in collaboration but rarely, although it would seem only natural that they should have come to an agreement with a plan for their mutual and much to be desired benefit.

The problem we present is many sided. Some of its aspects have already been studied by experts, many others barely visualised, while some are as yet completely ignored.

Let us consider, for instance, the cinema applied to sport as a means of propaganda among those who do not go in for sport. This is a branch that has never yet received sufficient attention. Do not suggest that films in which the sporting episode is interpreted by a champion and exaggerated by the cameraman's art serve any propaganda ends. If a person who does not go in for sport is to be brought to that point, he must be shown the methods of beginners and the easiest aspect of an exercise and not merely the technical ability of a champion, for in the latter case he will be convinced only of the impossibility of reaching the end presented before him.

Since the utility of a sporting education is universally acknowledged, that insuperable means of propaganda, the cinema, ought to be used to encourage the practice of sport, not merely to arouse admiration of champions. It must be admitted that at present, for every young man who competes there are thousands who only look on. The

disproportion, in fact, between followers of sport and spectators is enormous.

The screen should be used to persuade the latter to join the ranks of the former, and the sporting film must therefore no longer show us only the world of champions, for by doing this it merely repeats the spectacle in a sporting ground, to see which the public flocks in crowds.

We do not mean, of course, that the film should be restricted to demonstrations of technique. That is another task for the film with which we will deal further on. In our opinion, the sporting film should be entertaining like other films, but its main object should be to influence people to go in for sport, to be courageous and to develop their muscles and sense of dignity. It should, in fact, show the utility and beauty of a sporting education. In this connection, we may quote the words of Pierre de Coubertin, Director of the International Office of Sporting Pedagogy, who wrote on this subject in 1930:

«...If it could be shown on the screen that the man who goes in for sport has an advantage in the struggle for life, in other words, that he has greater probabilities of success and that sport prepares him to meet those changes of place and occupation, of situation and habits and ideas which are the inevitable consequence of the constant instability of modern society, athleticism would be increasingly developed and improved.

«It is to the interest of every young man,

ignorant of what the constant instability of society may reserve for him, to know how to drive a car, ride a horse, navigate a boat, defend himself with his fists, free himself with a cord, a jump, any movement of his body, from a difficult and dangerous situation; to say nothing of the fact that he may at the same time liberate others also from the same situation and that the collectivity to which he belongs inevitably benefits by his increased productive value ».

The cinema applied to sport as a means of teaching and improvement for those who already practice it: that is a form of cinematographic-sporting collaboration which is already carried out on a large scale, but it should form the second step of the programme that is to be desired. When a man has been drawn to an interest in sport, he must then be taught. But it is a stupidity to show a film of wrestling or running in which all the rules of technique are closely analysed to persons who have not the slightest intention of going in for either wrestling or running. That is why we agree with Tilden when he advises tennis players to study technique and style in films projected by the slow motion process, but assert that such films merely arouse a smile or a yawn in those who do not play tennis. The first thing to do, therefore, is to arouse interest in sport by showing its utility and beauty, and then to instruct. In any case, we note:

a) that Lawrence Baker has produced a slow motion film on football for the purpose of improving the technique of football players;

b) that Bobby Jones has signed a contract with Warner Bros. for 12 films in which he will show how golf should be played;

c) that in Massachusetts the Sportology Corporation has formed a film library for teaching baseball and basket-ball;

d) that in France, the Under Secre-

taryship of State for P. E. has had some teaching films produced by the Gaumont on lessons in physical education for children of from 6 to 13 years;

e) that in Switzerland, under the auspices of the International School of Physical Education of the J. J. Rousseau Institute and the Sporting Society of the University of Geneva, the Swedish, Danish and American methods of physical education have been projected, with comments, in the hall of the university.

The cinema applied to sport as a system of control in eventual questions that may arise, and therefore as a decisive medium of judgment is no longer a novelty. It played this part some years ago, when the French Boxing Federation had recourse to the film to know the result of the G. Carpentier-J. Jeannette fight. At the present day, there are perfect installations on hippodromes, velodromes and even on autodromes for shooting the phases of sporting events that may be contested.

In this connection, we should remember what M. Verhille wrote in *Cinaedia* in June, 1930:

« It is indiscutable that the cinema is called upon to render great service wherever any question over an arbitrage may be raised. The most impartial, clear-sighted and calmest referee in the world loses one of the advantages of the detached spectator by the very fact of being in the midst of the struggle and in contact with the competitors, namely, a clear view of the whole and exact appreciation of details. The cinema alone can fully assume the role of the real arbiter. It does not think nor judge, neither discusses nor becomes impassioned, but simply registers and reconstructs.

The cinema applied to sport as a means of study for the phenomena it registers: this is a scientific application which is com-

ing into use everywhere and proving its enormous importance.

The report of the sporting Dr. V. Gottheimer, who took cinematograph shots of the heart of Nurmi in repose and during fatigue, is no longer a novelty. In Italy, the organization of sporting medical men has brought, among other benefits, a widespread use of these scientific systems, which have a powerful ally in the cinema.

What interests us is to bring to light the educational value which would result from an intelligent co-operation between cinematograph and sport.

Sport and cinema have been accorded all the honours in the temple of the school for long past, but they have reached this goal by different roads, and it seems that they mutually continue to ignore each other.

The unquestioned and unquestionable didactic value of a collaboration between sport and cinema should not be confined to school-rooms where children and young people congregate. It should, on the contrary, enter into the conviction of those who direct the cinematograph industry and inspire its programmes and determine its enterprises.

The moment has come when we must recognise that the cinema has not done so much for sport as it has received from it.

Since the first attempt to draw them together (P. White, 1917) sport has done nothing but lend itself to every kind of cinematographic exploitation, and thus we have had, on the screen all over the world, views of sport which serve as background or colour, movement and tone to films of every kind and quality. They have been mere episodes, for it is rare that an important function is reserved to sport on the screen; and in those few cases where this has been done everyone has been dissatisfied.

We give below a list of sporting films which are the best of their kind that have so far been produced.

We could give here a long list of films on sporting subjects (fencing, boxing, football, motor-boating, swimming, riding, etc.) but it cannot be said that these films are real sporting films. There is not one among them which is a work of art and which above all serves as propaganda for the sport among those who do not follow it, bringing to light its utility and beauty.

The films we are referring to contain plots that are quite unoriginal; the end can be guessed from the very beginning. They are works that do not show the nobility of the sport in all its beauty, but almost invariably leave it under a cloud and present situations in which love and money are favourites in the competition against sport.

But that is not all. Very often we are shown dark and dishonest manoeuvres, which bear heavily on the sporting environment which is being presented. The personages are conceived on lines of violence or ingenuousness; a violence which is brutal and animal and an ingenuousness which is stupid and pathological.

We will not concern ourselves with the sport that is made use of as a kind of drug inducing improbabilities, like the magic wand of the impossible. The sporting part is frequently played by an unsuitable person, who also does not know how to act. Thus we see pygmies overthrowing giants, drunken men winning motor car races, jockeys holding back their horses on the winning post, skiers who descend declivities for so many hours that they could do the journey from Mount Everest to the Dead Sea in less time, wrestlers who kick their adversaries, Rugby football players who sell themselves, tennis matches which outrage every rule of technique and play, boxers who fight for ten rounds with their heads twisted back to look at some woman, matches that end in criminal assaults. And lastly, we even see the sport used as a

means for committing murder with impunity, as in the polo match in the film «Intoxication».

Oh, how far all this is from the soul and mentality of those sound, healthy men who really deserve the name of sportmen! They flock to the cinema when they see the announcement of a sporting film, for the powerful attraction of sport for the crowd is by now well recognized; but they leave the theatre with faces that express disappointment and sometimes even disgust.

The real sporting film, that is to say, the film which shows us the soundest of passions in its pure state, which reveals the most universal idealism in its finest light, has not yet been made.

Sport, which drew men together for a beautiful rite 776 years before the advent of Christ, still continues, after thousands of years, to gather men together, overleaping barriers and frontiers and annulling differences of race and of faith.

Why, after recognizing that the sporting actor is a necessity, after realizing that success is assured to sporting films, does not the cinematograph industry deal more worthily with sport?

The interests of the screen will not be betrayed by dedicating it to sport, but the screen will be able to accomplish the mission of spreading the conception of collective idealism, the power of brotherhood and of wholesome beauty.

The subject is a difficult one. Recognizing this difficulty, in fact, we say that the cinema can realize situations which are not conventional and can gather together from the immense world of sport those self-evident characteristics which deserve to be propagated.

Psychological, physiological, biological and chivalrous motives lend themselves excellently to this purpose, while the application of the radio enables us to reproduce the atmosphere of sporting environments also in the matter of sound.

If this goal were reached, a vast field would be opened to the educational cinema; and Italy could say a decisive word on this subject. In our nation, sport, laid down on lines of admirable discipline, has made real and significant progress, and educational cinematography, based on a Fascist conception, has found here a worthy seat and an ideal environment.

THE ORIGINS AND DEVELOPMENT OF THE EDUCATIONAL CINEMA IN HUNGARY

BY

Baron Jules de Wlassics

UNDER-SECRETARY FOR STATE IN THE HUNGARIAN MINISTRY OF CULTS AND PUBLIC INSTRUCTION

I should like first of all to express my profound gratitude to the organizers of the Congress for having given me the opportunity of expressing before so distinguished a gathering my views on the origins and development of the educational cinema in Hungary. My country, which has never failed to take an active and often a pioneer share in works of modern civilization and culture, has not neglected to introduce into its schools a system of teaching by means of animated pictures. Indeed Hungary was perhaps the first nation to make this system obligatory.

Taking advantage of the brief period of prosperity which followed the signing of the peace treaties, and allowed us to get together, at any rate in part, the financial means necessary for developing our educational and instructional institutions, the competent Hungarian educational authorities concentrated their efforts on rendering the culture of our mutilated Hungary sufficiently superior to give it a special distinction, taking well into consideration the prestige that belongs to it from its historic past and is thousand year old tradition in Europe for protecting and developing intellectual values useful for the education of the young.

With this premise, our first duty was undoubtedly to form a plan of study and undertake the publication of new scholastic books that should take due account of the changes worked by scientific progress in scholastic curricula and the variations in

methods made necessary by obligatory cinema teaching.

A decree of the Ministry of Cults and Public Instruction for the scholastic year 1924-25 made cinematographic teaching obligatory for seven years, that is until 1931-32, so that the young scholars have been regularly able to attend projections of instructive films. Since, however, the majority of the schools have not projectors, the performances were given in ordinary cinema halls where the pupils were taken by their teachers. Those scholastic institutes which possessed projectors gave their shows in their own halls.

By this decree Hungary placed itself at the head of the educational cinematographic movement, making a regular and systematic use of the motion picture in its schools. The principal decree, N.37335 of 1924 on obligatory pedagogic cinematography insisted, in a provisory way, on the obligation to project scholastic pictures in elementary, secondary and superior schools throughout the country when such schools are under the direct immediate control of the Ministry of Public Instruction. Period of obligation: three years.

A short while after this, in 1925, the before mentioned decree was extended to primary elementary schools and agricultural schools when the same were under the immediate control of the ministry.

At the same time, the decree was recommended for adoption by the churches and municipalities for such schools as might be

under their control. The ecclesiastical schools, like those attached to the municipalities including those of Budapest gradually adopted this system of cinema teaching so that it may be stated that film teaching is now general throughout Hungary.

After the termination of the three years of trial in 1927, the minister prolonged the initial decree by another one for the period of five years making instruction by means of educational films obligatory for this length of time. A company known as the Hungarian-Dutch Cultural Company was charged with the task of carrying out the technical execution of the plan in its details. The company was specially formed for this purpose with adequate capital. Thus the company is able to proceed in its work along lines already traced for it by the ministry. The organization in question, according to the instructions it has received, has had the task of organizing the schools from the educational cinematographic point of view and of giving each of them from six to eight representations or projections every year. The company was also under the obligation of supplying the apparatuses and the staff necessary for the projections. The ministry authorized the company to receive a compensation or fee from the elementary schools at the reduced rate of 24 fillers, with 28 fillers for the secondary schools for every projection on condition, in respect of the poor children, that 25% of the pupils of the elementary schools and 15 per cent of those of the secondary schools should be entitled to attend the performances free. Finally, the Ministry of Public Instruction, in collaboration with the Ministry of the Interior, obliged all exhibitors and owners of cinema establishments to lend their premises once a week in the morning for the use of the schools in order that pedagogic films should be shown. The only charges to be made were those for the actual consumption of light and the use of the staff. The duration of the projections was fixed by ministerial decree at one hour, to be deducted from

the total of the teaching hours. This means that films cannot be of a greater length than 1500 metres. Every show is preceded by a short explanatory comment, while leaflets authorized by the ministry are distributed free to the children.

As far as regards the essential content of the teaching films, the ministry has reserved to itself all rights as to the pedagogic control and direction and the preparation of the curricula. In the same way, the ministry alone has the right of issuing regulations concerning the production of new pictures. In a word, the Ministry of Public Instruction has taken over the task of organizing, controlling and seeing to the working of cinematographic teaching. In the early days, these tasks were carried out by the homogeographic section of the Hungarian Demographic Society, then by the committee for pedagogic films, and then finally by the Council for Instructional Cinematography.

These latter bodies were specially created for the purpose.

These organs receive the annual production plans which are prepared by Professor Louis GESZTI, pedagogic reporter of the society entrusted with the technical execution of the pictures. Professor Geszti was among the first persons in Hungary to urge on the ministry the advisability of intensifying the production of scholastic films. He is a particularly competent person, and deserves to be mentioned when discussion turns round the policy which has guided so far, year by year, the production of scholastic films, the more so since the films produced annually ought not to be considered only by themselves but also as forming part of a uniform series which is being continually enriched and completed.

According to Professor GESZTI, instructional cinematography and its use depends on one great essential which is that, in pedagogy, the motion picture can only be used with success for those subject matters which can be illustrated through movement and the sense of reality given by the film.

«Granting this, it became necessary to decide if films were to be considered as simple illustrations of text-books; or if it were possible to attribute a more important function to them. In my view, those who want only to consider the motion picture as a means of illustrating text-books are mistaken as to the real effective value of the film. In Hungary, the cinematography to be introduced into the schools will have a much more serious task before it.

«a) The film should present the various subjects in the curriculum which the school has been unable to set forth properly with the means at its disposal such as the action and movements effected by objects which are separate in time and space, such as the various manifestation in the life of a bird and the activities of men in workshops, factories, etc.

b) since our curricula constitute a rigid programme of studies which does not permit of following the almost daily developments and finds of science and technique, without grave harm for the teaching, it becomes the task of the film to fill in this want, acting, so to speak, as a *pedagogic handmaiden*, especially as certain subjects such as those relative to cosmographical and radiological notions and the latest and most important scientific and technical discoveries cannot be treated in school except in the most superficial way.

«c) Finally, one of the most important tasks of cinematography is to keep us informed of the most important every day events occurring in all parts of the world. Its educational and especially its pedagogic importance in this field cannot be denied. What other means could give us in a better and simpler form news of ethnological expeditions in the valley of the Amazon or in the Himalayas, or of recent airplane flights?

«These are the three essential points which have been behind the policy of Hungarian-Dutch Cultural Economic Company and its pedagogic «rapporteur» in preparing the annual programmes of the scholastic films».

It can be noted from the foregoing remarks and quotations that general pedagogic considerations have been guiding policy in the production of scholastic films. The pedagogic concept that the film should show objects that cannot otherwise be shown in schools has been strictly adhered to. The utilization of scholastic films ought not to be intended only for supplying imperfect and partial notions or to implant certain notions or erudition, but should aim at widening the spiritual horizon of the students and their general knowledge, giving life and colour to dry printed words in scholastic text-books, making thought calmer and more elevated and uplifting the minds of the young.

Pedagogic films produced in Hungary have dealt with the following subjects: history, geography, natural history, physics, Hungarian literature, art, hygiene, physical culture, sport, industry and commerce, biology, chemistry, history of civilisation, etc.

For students of the lower classes in the elementary schools, a number of short amusing films have been made, little stories the moral of which is that good should be done and evil avoided. Hungary has generally been made the subject of the geographical films as also those countries which are nearest to us. At the same time, in accordance with the rules laid down for the scholastic programmes, each secondary school receives every year at least one film dealing with a foreign country. Films have been projected in our secondary schools on Italy, Germany, Spain, Holland, the Dutch Indies and Bulgaria. These pictures regard the countries mentioned from the historical and geographical points of view, with sometimes an examination of their economic position.

The chief object of these pictures is to inculcate an appreciation and esteem of foreign nations.

We have, moreover, shown other types of films such as those of expeditions like that of Byrd, and others illustrating the shores of the Mediterranean, Alaska, the mysteries

of virgin forests, etc. The widespread interest that exists in physical culture has induced us to give some projections on hygiene, gymnastic exercises and sport. In the seven years from 1924 to 1932, 122 pedagogic films having a total length of 600,200 metres were projected.

Our pedagogic and instructional films soon obtained a rapid success in Hungary, and the clearest proof of their popularity is that every year continually increasing numbers of towns and villages have expressed their desire to take part in this innovation. It has indeed often happened that the scholastic authorities themselves who, to begin with, refused for reasons of principle or other motives to show our films in their schools, have later come and begged us for them, after having appreciated the advantages of cinematographic instruction.

With regard to the circulation of instructional films, we are able to give the following statistics: in the scholastic year 1924-25, 829 representations or projections were given in 58 communes before a public of 36,528 students, and in the seventh year 1930-31 projections totalled 6,315 in 215 communes before 263,404 students. Despite the economic crisis, in seven years the number of the students who witnessed the projections increased by 277,876. These figures show the advances made by cinematography in the Hungarian schools and the esteem in which the educational film is held.

We must not forget that the city of Budapest has enjoyed several advantages since, with the approval of the Ministry of Public Instruction, direct film production has been engaged in for the local schools. The municipality has produced its films in the «Studios for the Production of Pedagogic Film», which are its own property and were established as far back as 1913 for the manufacture of instructional films. Ever since then scholastic film teaching has been organized for the metropolitan schools on a different plan from that used for the state schools. Although the studios have changed hands, and the policy governing

the production of pictures has been widened, instructional and educational films continue to be produced today under the management of the *Magyar Filmiroda* (Hungarian Cinematographic Bureau) which is gradually becoming better and better equipped for the purpose.

The production of pictures by the municipality of Budapest follows the policy here outlined. The Committee of Public Education of the city invites the teachers of the schools to take part in competitions for scenarios of a pedagogic character. The most suitable scenarios are accepted and turned into films under the superintendence of the author in the studios of the Hungarian Cinema Bureau when the film is finished, and before it is sent out to the schools, it is examined and passed on by the Committee of Education.

58 scholastic institutions are provided with projectors and halls in which during the last few years 104 films were shown for a length of 50,000 metres.

The titles of some of the films most recently produced will show the important and valuable cultural work being done by the Hungarian producers of pedagogic films. Among others, we may mention, *First Aid* (a medical film), *Learn how Children Talk* (film showing how to take care of children); *Hydrography of Budapest*, *The Use of White Coal*, *The Electric Plant of Babhida*, *The Drains of Budapest*, *Life in the Tisza*, *Spring Work in Gardens*, *The Production of Silk Cocoons*; *The Life in a Drop of Water*, *The Production of Iron and Steel*.

Despite the evidence of the effects of the film as a method of visual teaching, the system we have adopted has not obtained the complete approval of our authorities and pedagogic experts. While international conferences have done a great deal to stress the instructional and educational possibilities of the motion picture, arriving at an agreement regarding the exemption of edu-

cational films from customs dues, in Hungary obligatory cinema teaching, which was introduced perhaps too quickly and without sufficient ponderation, is now in a difficult position owing to the interference of monopolistic systems.

We have already remarked that the eight annual shows of films take place in ordinary cinema halls and always in the mornings. During this time the ordinary scholastic teaching has been suspended because all the students were at the picture. The teachers observed, however, that the results obtained with this system were not up to expectations because the projections did not fit in strictly with the curriculum and therefore did not properly serve the cause of teaching. The fact that the projections preceded or followed, as the case may be, the class lesson by one, two or even three years, that the films were the same for all ages and classes of pupils without any regard for their intellectual level or their mental needs condemned the whole system from the didactic point of view. It was also observed that the majority of the pupils whose ages varied from 10 to 18 did not derive any advantage from the projections; the very young pupils because they did not understand them and the older students of the superior classes because they were already in possession of the knowledge which the film was supposed to be giving them. Several cases of lack of school discipline were attributed to these causes.

There were, moreover, defects in the technical organization. Generally speaking, a cinema hall is not the most suitable place for teaching, and the excessive speed with which some of the operators projected the pictures — partly in order to give all the projections in the limited period of time allowed — and also the fact that there was no time to allow the hall to be properly aired after each projection helped seriously to damage the success of the project.

Pedagogues also objected to this kind of teaching that the pupils were obliged to attend the projections quite passively with-

out being able in any way to communicate their impressions, make remarks, or, more important still, ask questions. All these facts and others decided our Council of Public Education to request the Minister to suspend cinema teaching in the public cinema halls. The minister, after having taken due account of the various opinions contrary to film teaching along the before mentioned lines, took the decision to reorganise the whole matter thoroughly.

The fundamental principle behind the reorganization has been to recognize that the future of scholastic films required that they should be adapted to the school curricula and vary according to the type of school or class both as regards the subject matter to be treated and the manner of showing the film. The necessity of providing a stock of films or a film repository for the districts, municipalities and eventually for the schools themselves was also debated.

The economic crisis and the necessity of reducing as far as possible imports into Hungary of foreign goods placed insurmountable difficulties in the way of this plan, which was criticized with the further objection that to endow all the schools or municipalities or districts with a stock of films and a number of projectors would mean furnishing them with stock and plant which continued progress might soon render obsolete. There was also the question of the lack of any international agreement on the format of films to be used in all countries which is a source of much trouble and difficulty.

Consequently, the decree on obligatory teaching by films in the public cinema halls was revoked, but for the motives indicated here, the succeeding new system to take the place of the old one shows signs of being put slowly into effect. The general result is a stagnation in cinematographic teaching which began so brilliantly in our country. Today the motion picture is only used for teaching purposes in some 70 or 80 schools which are provided with their own projectors.

This must be interpreted as meaning a

renunciation of the use of the most efficacious visual aid known in teaching. Indeed the present temporary hold up may eventually prove to be a notable advantage and allow us to make a better preparation for the day when we decide once again to introduce the new system of motion picture teaching.

Since it has been recognized that the projection for teaching purposes of educational films in public cinema halls does not meet all the requirements of scholastic instruction, it will not be difficult to pass — when economic and technical conditions permit it — to the new system which will make use of all the technical improvements and follow the findings and results of international congresses.

In my opinion, one of the principal tasks of our Congress will be that of coming to an international accord on the question of a uniform format for pedagogic films. This may be considered an indispensable condition for the economic organization of cinema teaching, since once an obligatory uniform size has been agreed upon it will be much easier to settle the matter of exchanges of pictures between different schools and different nations.

At the same time, it will be extremely useful for all the nations in which Central

National Film Committees do not yet exist to organize such for the purpose of enabling them to see to the formation of cultural repositories and the search for suitable cultural films. The matter of distribution and exchange would also naturally be part of the task of such committees. The National Centres of Pedagogic Films controlled by the National Committees of the I.I.E.C. ought to take due consideration of the policy which results from the Congress.

Evidently our National Centre of Pedagogic Films, as soon as it has been formed, ought to take as a model — as far as is possible — the Italian LUCE Institute, one of the clearest evidences of the creative genius of the Italians. In our century which is considered the century of the motion picture, the cooperation of the National Committees of the Rome Institute can assume the greatest importance, but if we want to obtain all the advantages possible we should follow the ideas and policy of the LUCE Institute. Then we shall have something live and practical.

In this way, teaching enriching itself with everything the film can give it will reach its objectives, widen its horizon, gain in the possibilities of knowledge penetration and reciprocal understanding between peoples.

EDUCATIONAL AND SCHOLASTIC CINEMATOGRAPHY IN CZECHOSLOVAKIA

BY

Dr. V. Vojtech

State Intervention. Cultural and educational cinematography in Czechoslovakia is under the control of the State, and the ministry of Public Education has issued some important decrees on the subject. One of these draws the attention of the central bureaux for education to the powerful influence exercised by films, and nominates inspectors who are authorized to enter all cinemas freely for the purpose of examining the educational value of the pictures shown and reporting thereon directly to the ministry.

The ministry has also issued recommendations to the organizers of the popular manifestations to do all in their power to favour the showing of educational films. Following these instructions, two commissions were formed for choosing films of this kind. One of these commissions for the Czech-speaking population has its offices in the Masaryk Institute for Popular Education and the other for the Germans in the building of the Prager Urania. These commissions also look after organizing educational and scholastic meetings and projections.

Another recommendation made by the ministry to the superior schools was to organize in a systematic fashion cultural shows and to utilize the film as a normal means of instruction.

The Ministry of Education has various funds at its disposal for the spread of the cultural film, and also takes advantage of the work of the State Institute for slides and fixed projections formed in 1920 by Dr. DRIML, author of several popular films

on hygiene who, unfortunately died prematurely.

The Ministry of Agriculture too by means of its Bureau for films and fixed projections utilizes pictures and fixed projections for spreading principles of culture and popular science.

The Ministry of National Defence, produces in its turn and uses its films for instruction, teaching drill, etc. This ministry, moreover publishes a cinema review *The Military Messenger* which, together with short films is used as propaganda material and circulated in the cinemas by institutes of popular education and physical culture.

Finally, the Ministry for Foreign Affairs utilizes the best current films as a means of propaganda for Czechoslovakia.

Institutes and Cinema Culture Associations.

The Masaryk Institute for Popular Education. - This association

constitutes a national centre of popular education whose activity is directed to the educational sphere. The Institute in question is an independent body having an official character and connected with the Ministry of Education and other ministries which entrust it with various tasks from time to time.

The Masaryk Institute forms part of the censorship bureau. Its representatives inform the persons interested of the decisions of the censor with critical notes on the films examined, which notes are later published in the popular educational review *Ceska Osveta*. The films are classified in this re-

view according to their artistic and cultural value.

The Masaryk Institute also deals with the technical instructions of those likely to be called upon to organize educational and scholastic cinematography by means of special courses in collaboration with normal school associations. It looks after the supply of films either by purchasing new ones or renting old pictures to be used in these special courses.

The Institute loans out to those cultural and scholastic bodies which make request for them the films which it produces itself as well as the pictures it keeps in its repository. The latter amount to over 600 with a total length of 250,000 metres. The Institute also issues once or twice a year a list of cultural films, classified according to subject and supplied with brief comments.

The Czechoslovakia Society for Scientific Cinematography.

This body has been recognized as the Czechoslovakian National Committee of the International Institute of Educational Cinematography. It does not only concern itself with purely scientific cinema questions but, as permitted by its constitution, it also engages in matters dealing with scholastic and educational cinematography.

The institution was founded in 1924, and its objects are the advancement of the use of the motion picture in the department of science as a means of research and in the schools as a means of instruction and education. The Society, moreover, is interested in purely scientific questions connected with the various branches of cinematography.

The Society collects all statistical and historical material concerning the educational and scholastic cinema in Czechoslovakia, both from its own members and those of other institutes and organs.

State Institute for Film and Fixed Projections. — This body, as executive organ of Ministry of Education is entrusted with collecting or producing series of films and

slides for use in schools and educational institutions. It is also charged, in association with the Masaryk Institute with a loan service of films and slides. It possesses more than 900 series and a total of 71,000 slides or fixed projections.

Agricultural Centre of Films and Slides.

— Attached to ministry of Agriculture; has same objects as Statistical Institute. Possesses 750 series of slides and a total of 140,000 metres of film.

Union of Agricultural Cooperatives. —

Uses special films for instructing agriculturists in new methods for propaganda and new items on rural habitations.

Prager Urania. — An association having the same objects as the Masaryk Institute but intended to look after the German-speaking population. Its loan service handles 15,000 slides and 34,000 metres of film.

The Cinema Amateur.

This is a branch of cinematography which has grown greatly during the last few years. All the most important amateurs are now organized in clubs and groups which total as many as 100 in the territory of the Czechoslovakian Republic or in the Pathé Club of Prague or in the Amateurs' Club of Brno.

Many cinema amateurs are teachers and professors who produce special films for their own personal use or utilize them for class work and the benefit of their pupils.

Numerous schools and educational associations employ, in addition, to their own films, Pathé or Kodak collections of motion pictures. Unfortunately, the variety of the formats, the high cost of apparatus and the diminished income of many schools and associations, besides the lack really good films, are obstacles today to a wider popularization of sub-standard amateur cinematography.

The Cinema in Hygiene and Physical Education.

Thanks to Dr Driml, who has done admirable work for making popular scientific principles, there were

produced between 1923 and 1926 a number of pictures of a popular character dealing with various hygienic subjects such as Trachoma (an eye disease) and *Sexual Education*. Following this initiative the Ministry for Hygiene and Physical Education inaugurated the making of some «shorts» with the idea of making the notions of ordinary hygiene popular.

The Czechoslovakian Red Cross has also made some pictures, including some of a propaganda nature to be distributed among Red Cross colonies and young peoples' camps.

The *Sokol Federation* has a stock of and produces a number of documentary films on gymnastics and physical education. It owns today 25 films of a length of 15,000 metres. These pictures are projected by the travelling cinemas of the Red Cross or by the Sokol cinemas which are to be found in almost every centre.

Documentary Films. This is type of film that is widely spread in Czechoslovakia. The majority of these pictures treat of the geography and ethnography of the Republic and popular traditions and a large number have been made by various producers.

In the front rank, we should mention the *National Slovak Association* which thanks to the initiative and a generous subvention from the President of the Republic T. Masaryk has been for a number of years engaged in collecting photographs and films of a geographical, ethnographical and folklore documentary character on Czechoslovakia and Ruthenia. The author of these films is Karl PLICKA, an expert of the first order and an admirable photographer; also a member of the Society for Scientific Cinematography. His recent picture «The Land that Sings» is a sound film, and was shown at the Venice Exposition of this year.

Another sound film of this type «The Disappearing World» by Professor V. ULEHLA of the University of Brno shows

how folklore is disappearing under the drive of modern civilization.

In the same period of time we have seen the production through the energy of F. MOMAREK, regional inspector of the Moravian schools of a long film of 3200 metres entitled «The Humanitarian Work of J. A. Comenius», illustrating the systems followed by the great Czech philosopher and educationist and how these systems have been applied in the national schools.

A special repository of films of national dances made by Dr. F. Pospisil is to be found in the regional museum of Brno.

Another film archive is to be found in the Liberty Museum at Prague. It is a collection of the historical films which refer to the struggle for national liberation and the war episodes of our legionaries in 1914-18.

The Agricultural and Industrial Film.

In the department of agriculture, as we have already remarked, an extensive use is made of the cinema both for schools and special courses. Industry also takes advantage of the motion picture very fully, both for documentation and propaganda.

Juridical Questions. Educational and scholastic films do not enjoy any customs exemption.

The organization of cinematographic representations is governed by a decree of 1912, which permits persons or bodies to organize these shows when authorized thereto by the *Zemský úrad* (a regional political association). From 1922 onwards these licences or permits have been granted only to associations but no longer to individuals, even if the actual management of the cinema is in the hands of professional cinemamen. In this way the state has been able to encourage the development of numerous educational and humanitarian associations, at the same time procuring a wider circulation for cultural films.

Today there under consideration a new law on the cinema which will look at the matter from an up-to-date point of view

and do something to favour the spread of cultural film.

All juridical questions concerning the motion picture come under the control of the Ministry of the Interior, which exercises a censorship on films with the aid of consultant committees.

Cinema Censorship. The ministry for the Interior possesses three consultative bodies for the working of the film censorship. There is, to begin with, a body of five members presided over by an official of the Ministry and composed of representatives of the ministries of Public Instruction and Justice a member of the Masaryk Institute and a representative of the Feminine Teaching body.

The other two consultative bodies are a kind of appeal commission. The task of the first body is to decide whether certain films are to be projected before young people, while the second commission adjudges on «universal» films; and gives a certificate corresponding to the British «U» certificate. The second commission is composed of 11 members and the representatives of educational and cultural associations have a right to be present and vote at meetings.

There is also a pre-view censorship which judges them from the point of view of the purity of language.

The censorship bureau indicates, on the proposal of the Ministry of Public Education, the film which have an educational and cultural character and can enjoy exemption from the various taxes levied on cinema shows.

The projection of films not indicated by the censors as «cultural» is permitted for young folk who have passed the age of 16. The projection of pictures classified as cultural is allowed to young folk and children except for projections taking place after 8 pm.

The projection of educational and scholastic films outside public cinemas is subject to the same regulations and safety orders against the risk of fire even if they are

made of «non-flam» film supports. There is no exception here in favour of the schools. If «non-flam» film is used in any format, only those precautions of general safety are required as are used in packed meetings of people.

Film Repositories. There are no regular film archives or repositories in Czechoslovakia. There, are, however, a number of special stocks of films as, for instance at the:

a) Prague Polytechnic Museum where there is a section «Film and Photographs» which includes original pictures made since 1898 at Prague and a number of examples of French and British films;

b) at the Liberty Museum where there is a collection of historical films to which we have already referred;

c) in the Masaryk Institute there is an archive of films made by the Institute itself and those made by the State Institute;

d) other repositories or small stocks of films are at the Agricultural Centre, the Prager Urania and the Ministry for National Defence.

The Scholastic Cinema. It is obvious that in the native land of J. A.

Comenius all kinds of scholastic instruction ought to be based upon his works in general. This explains why cinema shows suitable for students have been organized now for a matter of some 20 years. It was only after the war that a full study of the problems centering round the methodical introduction of the motion into the schools was attempted.

The development of scholastic cinematography is strictly connected with the practical possibilities it offers. Researches on the theoretical utility refer to the influence of the film from the pedagogic point of view, its usefulness for the teachers, the organization of special courses for teachers and the practical use of the film in scholastic teaching.

Several of the courses referred to have

been organized under the patronage of the Ministry of Public Education and National Culture in collaboration with the Federation of Czechoslovak teachers and the Masaryk Institute. Other courses have been arranged by the Urania and the Central Scholastic Administration gave its consent as far back as 1924 that cine-scholastic projections should be arranged once a month during term time.

The films which are used for these projections are chosen by two scholastic commissions, one of which represents primary teaching and the second for middle schools. The commissions are composed of directors of teaching institutes and representatives of the central scholastic administration and the Masaryk Institute. There is a special commission in connection with the «Prager Urania» Institute for the German language schools.

These performances take place in the school class-rooms or central halls if there is an apparatus handy, and if not in the ordinary cinemas from which on these occasions, the public is excluded.

The performances preserve their ordinary didactic character and are preceded by verbal explanations which are rendered easier to grasp owing to the fact that the scholars receive in advance a resumé of the titles

and sub-titles of the film. The entrance tickets cost one crown per pupil, but between 20 to 30 per cent of the scholars who are not in fortunate economic conditions are allowed free admission. Some communes take on themselves all the expenses deriving from the shows.

In this way there were organized at Prague for the primary and secondary schools about 20 projections that are frequented every year by from 90,000 to 150,000 students.

Outside Prague, the same projections are organized by commissions composed of pedagogues and representatives of the bodies interested in public education.

The problems of scholastic cinematography are, moreover, in course of being examined by a commission of teachers representing the normal schools. The president of this Committee is Mr. PAURX.

The film has become a precious means of education and research in laboratories and has been largely used for this purpose in Czechoslovakia. Unfortunately, the economic crisis has reduced the endowments and subsidies granted to scientific institutions to the point where they have become to valueless.

THE EDUCATIONAL CINEMA IN CHINA

(REPORT OF THE CHINESE NATIONAL SOCIETY
FOR EDUCATIONAL CINEMATOGRAPHY)

THE Chinese National Society for Educational Cinematography was founded in 1932 by a group of local personalities belonging to the scientific, artistic and teaching world as well to the film industry. Some months after its creation, the society was recognized officially by the Ministry of Education and the Central section of the Kuo Ming Tan. The society began its work on June 8 of the same year.

On April 4, the society had in fact, received from the education ministry instructions to collaborate with the I. I. C. E. In less than two years, it was able to organize a vast movement in favour of the educational film. The results of this work may be appreciated through the following summary.

ORGANIZATION OF THE SOCIETY. — The Chinese National Society is a cultural institution. It comprises 21 executive commissaries and seven substitutes who, together, form the executive committee that takes charge of all the work. There are, in addition, other ordinary commissaries or controllers for special tasks and occasions. The whole organization is under the supreme direction of the Kuo Ming Tan.

The committee is divided into three sections: one for general affairs, another for publications, and the third for projections.

There are also sub-committees which are expected to assist the principal committee. Among them, we may note:

a) the sub-committee for questions relative to the film production, composed of five members who take upon themselves the responsibility of censoring and controlling the production of the pictures;

b) a sub-committee for controlling (censoring) national films;

c) a sub-committee for publishing the annual review of Chinese films.

CHOICE OF SUBJECTS FOR EDUCATIONAL FILMS. — In view of the necessity of choosing the subjects, the following criteria have been adopted:

a) *to develop the national spirit showing* the merits of Eastern culture, spreading a knowledge of the ancient national glories and of the revolutionary principles;

b) *controlling the productive and constructive organizations* by encouraging the movement toward rural reconstruction and the « back to the land » campaign; illustrating the work already done along these lines and arousing the interest of the people for national reconstruction;

c) *spreading notions of a scientific character*, by popularizing the most interesting practical notions of every day life, showing life and the universe through the motion picture and encouraging the scientific spirit;

d) *intensifying the revolutionary spirit*, preaching patience and perseverance, encouraging the spirit of sacrifice and struggle and mutual aid;

e) *laying down moral rules for life between peoples* according to the present social system and encouraging sacrifice for the sake of the community.

The Society considers that though the film is a form of entertainment, it also without doubt possesses high educational qualities and must be considered in this light. For this reason, imported foreign films must

be examined with the greatest care, since the present situation of China is often badly understood and worse interpreted which can cause painful clashes of opinion. In the interest of the film industry itself, and in order to eliminate as much as possible the drawbacks referred to, it seems clear that the five points laid down, which ought to be accepted by future producers, are such that they ought to be recognized as fundamental by all bodies concerned with the educational cinema.

OPEN LETTER TO WESTERN PRODUCERS. — We are glad that recent European and American films have shown a notable improvement in technique and subjects treated. This is doubtless the reason for their success.

China has always been an excellent market for European and American production, and during the last ten years the influence of these films on the social life of the Chinese people has been notable. Though, among these pictures, there are some that can exercise a beneficent influence on our people, the great majority deal with adultery and theft. These are dangerous types of films for the Chinese. They are to a very considerable extent responsible for many of the evils which have afflicted our country.

There were the assaults on trains at Lin-cheng in Shantung in 1921, and the kidnapping of travellers. Similar cases have occurred recently at Shanghai, and they were undoubtedly inspired by films. Films of this kind have done more than cannon or bombs to disorganize our moral and social life.

The interest of Western producers should be to consider the intrinsic worth of the pictures they send us. They should also do something to help on culture between

friendly nations: Films with this intention should be sent to China.

The Chinese National Society for the Educational Cinema was organized by a group of intellectuals who have today all possible authority for censoring and producing films. It is right then in placing its veto on pictures which it considers objectionable.

After the great national revolution of 1926, China suffered a great deal, and it has required a vast effort for it to take its place with the other nations of the world. The latter enjoy, in addition to their material development and social stability, possibilities for periods of repose which they can pleasantly occupy. We cannot do the same thing. Our society cannot permit itself shows with luxurious adulteries, crimes, and cruelties which would prove highly demoralizing. The import of pictures of this type should be reduced to a minimum in view of their tendency to disturb the spirit of sacrifice of the young and tempt them to vice.

China is at present following the principles of the Three Peoples dictated by Dr. Sun Yat-Sen for the reconstruction of national life. Only pictures which are in accord with these sentiments are entitled to be shown among us.

In this period of reconstruction, which forms our present attitude towards life, we have a great need of aid and sympathy from nations which are more advanced than ourselves on the path of civilization. Recently many foreign films have attempted to picture Chinese life and the conditions of our country, but they have been full of erroneous interpretations and indications, and have solely amused the public with imaginary pictures and views, all to the detriment of the real China.

HOW A STATE INSTITUTE MAY GUIDE EDUCATIONISTS IN THEIR CHOICE OF APPARATUS

BY

H. D. Waley.

PRECIS

THE British Film Institute seeks advice on this problem: «How a State Institute may guide educationists in their choice of apparatus.» This is an acute necessity at present owing to the bewildering variety of apparatus on the British market.

The first step — to compile a list of projectors. Early attempts in this direction vitiated by lack of method and critical discrimination.

The 1932 list — methodical and discriminating, but limited in usefulness because no testing was undertaken.

With the help of the British Kinematograph Society the British Film Institute hopes to issue a list free from this defect.

Even the best list is no substitute for definite advice.

The difficulties of offering definite advice — likely to arouse hostility among sellers.

Could this be overcome by establishing a projection centre — a place where the educationist could see under one roof the various projectors actually functioning?

He would thus have a favourable chance of making a good choice without the Institute risking unpopularity among sellers.

Compare building centre and radio centre in London.

Possible use of a projection centre for film-showing.

Would it be better to cover sub-standard apparatus only or to include either transportable 35 mm machines or both these, and theatre type 35 mm machines?

I should like to begin by making it clear

that I am presenting this paper much more with the idea of asking for advice than of offering it.

The problem on which I want your advice is, How a State Institute may guide educationists in their choice of apparatus?

The British Film Institute explicitly offers this service in paragraph 3 of its «Aims and Objects» — To advise educational institutions and other organisation and persons on films and apparatus.

The constant stream of enquiries which the Institute receives is sufficient evidence that the educationists welcome this offer. Nor is it remarkable that they should. The prospect which confronts an educational purchaser of projectors in Great Britain at the present time is a sufficiently perplexing one. Our markets are stocked with a bewildering number of different types, successive waves of progress have brought to our shores the 8 mm film, the 95 mm, the 16 mm, and the 17.5 mm, all on top of the original 35 mm.

Accordingly our educationists feel themselves in especial need of guidance in their purchases of projectors. And, when one comes to consider it in detail the task of giving such guidance proves to be a very delicate and intricate one.

The first step towards nationalizing supply and demand of educational projectors is generally felt, rightly, I think, to be the compiling of a list of all the projectors available.

Even at this stage a number of difficult problems arise. So far as I have been able to trace, the first move towards making a

list of this kind in Great Britain was undertaken by a Committee working under the Cinema Commission of Enquiry established by the National Council of Public Morals which published its report in 1925.

This committee followed what I may call the line of least resistance and simply strung together the various descriptions of apparatus supplied to them by the salesmen without any attempt at arrangement or criticism. Unfortunately a list compiled in this way is bound to suffer from many defects. In the first place it is bound to be perplexing through lack of arrangement in the information supplied and in the second place it is bound to be misleading through lack of critical elimination of unsubstantiated claims and untried apparatus.

Thus in this particular list useful items of information are hidden away among useless matter such as that the Oxford Portable Projector is covered in leatherette of rich Oxford blue!

Moreover, many of the projectors reported on never actually got into commercial production at all, and some of the claims made for their performance contain inherent impossibilities. For example, one projector in this list claims to be able to project in broad daylight just as effectively as in the dark by means of what is described as a «purely chemical screen». I hope I am not unduly sceptical about daylight screens, but I have examined a great many and never found one which lived up to the claims of its sponsors.

That however is a digression. My point is that an unarranged uncriticised compilation of this kind may conceivably do more harm than good. I think this was clearly realized by the compilers of a list which appeared seven years later in 1932 under the auspices of the Commission on Cultural and Educational films. This list was published as an appendix to the Commission's report which was issued under the title «The Film in National Life!». In this list the information obtained was published in a chart under a series of headings — name of projector,

whence obtainable, price, type of lamp used, whether hand or motor-driven, would it show stills and reverse, was rewinding done on the machine or off. Further the list was subdivided, into nationalities, which I think was unnecessary and liable to be misleading, since cases occur of machines consisting of lenses made in one country and mechanical parts made in another, the whole being assembled in a third. And, of course, there was further subdivision into the various gauges of film and into silent and sound machines.

In any event it was something to have achieved a list containing some elements of order and a high percentage of machines which had come to stay.

But it will not have escaped your notice that no mention is made of what is really one of the most important points about a sub-standard projector. Its light output in lumens or, as another aspect of the same thing, the size of picture which it will illuminate. This omission was not accidental, it was a logical result of the method employed in producing the list. The list was produced by a committee of busy experts who, while they attended a demonstration of each machine described, naturally had not the leisure to undertake testing work. Nevertheless, they decided not to print any figures for the accuracy of which they could not vouch. This would have been unfair to firms who supplied figures estimated on a conservative basis.

The British Film Institute therefore finds itself faced at the present time not only with the problem of keeping the Commission's projector list up to date but also with that of creating machinery for proper testing of projectors.

The Institute is fortunately placed in having for this work the co-operation of the British Kinematograph Society's Standards Committee. But it is not to be expected that a voluntary committee of very busy men can undertake spade-work, and testing of all kinds emphatically is spade-work, so it will no doubt be necessary to supplement

the work of the Committee either by means of a paid Secretary or by the employment of some existing institution which undertakes work of this kind, such as the National Physical Laboratory.

But even when this has been done and a list produced which is well-arranged, fully-informative, and absolutely reliable, the question of how a State Institution may most usefully mediate between buyer and seller will not have by any means been completely solved.

The educationist who receives even the best imaginable list is still entitled to reply «This is all very interesting and informative, but as a matter of practical advice which of these projectors do you think I ought to buy? And to feel indignant or disappointed, according to temperament, if told that the Institute proposes to leave him to draw his own conclusions from the list.

On the other hand the Institute has to face the fact that if it yields to pressure for particularised advice from buyers it will inevitably bring upon itself the odium of sellers who feel that they have been unfairly passed over.

An Institute necessarily relies so much for the efficacy of its work on the good-will of all sections of the cinema trade that this risk ought not to be undertaken lightly.

In these circumstances some scheme appears to be required which will enable an Institute to go a little further than merely supplying a list of projectors, without risk of stirring up jealousy among sellers.

Towards this end the British Film Institute is considering a scheme which may, we hope, go some considerable way towards solving the problem of mediation between buyer and seller.

It is proposed to establish a projection centre rather on the analogy of two other centres which have recently been successfully started in London; a building centre and a radio centre.

These centres are in effect permanent exhibitions at which goods from all available sources — building materials and wireless

receivers, in the two cases I have mentioned, cinema projectors in our own proposal — are assembled under one roof for the benefit of the purchaser, who is thus afforded favourable conditions for the making of a choice.

That the educationists would welcome the establishment of such a centre goes, I think, without saying.

It might perhaps be feared that the sellers of apparatus would feel apprehensive lest they should lose something by being denied their own individual methods of display and showmanship.

One can only say with regard to this that the success of the building centre and radio centre proves that in these two trades, manufacturers and salesmen have been far-sighted enough to support schemes of this nature, and there seems no reason to suppose that the cinema trade would be any less far-sighted. Such a centre would enormously increase the utility of the Institute to educationists during the period which we are now passing through in Great Britain. The number of educationists in our country who have reached the stage of deciding to buy a projector but await guidance as to what projector to buy is at the moment enormous.

We must anticipate that this phase is merely temporary, a sort of preliminary phase which will have to be passed through before the ultimate problems of the educational cinematography can be squarely faced at all.

Nevertheless something can certainly be done to avoid the needless lengthening of this preliminary period by creating, in the mind of the educationist, confidence that if he buys now with guidance from the Institute he will not have reason to repent his choice.

A projection centre would create this confidence because the opportunity of actually seeing and handling the machines would be a very different thing from the opportunity of poring over the pages of a printed list.

A projection centre would relieve the In-

stitute of the responsibility of offering invidious advice because the educationist might reasonably be expected to make his own choice when given the opportunity of actually inspecting a wide range of apparatus, and to realise that the Institute was performing a very signal service, in providing this opportunity.

As I have said already the equipment-selection problem may be regarded as a phase which perhaps is passing through its maximum of intensity at the present time, especially in Great Britain, when the amount of equipping already done is so small and the variety of apparatus on offer so large. In four or five years time there will be far fewer unequipped schools and probably survival of the fittest, or its commercial equivalent survival of the best boosted, will have eliminated a good many projectors which are at present in the market. So the equipment problem will have become less acute.

But I do not think that a projection centre will by then be no longer needed. Projectors will become worn out and will require to be replaced by machines of newer type, for we must visualise a constant, though it is to be hoped not a revolutionary, series of innovations in design.

Moreover it is to be hoped that the projection centre will be so organised that its activities may facilitate not only selection of apparatus, but also selection of films.

At present a schoolmaster who wishes to choose a film on a given subject has to act in the dark, except for the very feeble ray of light which the catalogues issued by film libraries generally throw on the contents of their films.

Now, whereas the problem of choosing apparatus is likely to get less and less acute, the problem of choosing films will increase in complexity, year by year, as the number of educational films available increases. At present «*embarras de richesses*» does not affect us very often in the choice of a film on a given subject. But this state of affairs is, we hope, soon to be superseded.

When it has been, it will be a very real

necessity that there should be some central establishment to which a lecturer could write and say: «I want to see all the available films on say: electro-magnetism, would you please let me know on what date or dates I can do this?»

A central Institute, which would be in a position to collect films from the various London film libraries and send them back at once would I believe be able to undertake a service of this kind.

The possibility of demonstrating the films on any one of a large selection of machines would, I think, in itself be valuable.

But we are already looking rather further into the future than the subject of this paper really warrants us in doing.

I should like in conclusion to deal very shortly with the material and practical side of such a project. How much space is a project of this kind going to take up?

One cannot of course demonstrate a projector to the best advantage except in a room at least as large as the room where the projector is meant actually to be used. So it would be necessary to have at any rate the possibility of using a room some fifty or sixty feet long for demonstrations. Classroom models on the other hand could be demonstrated in a smaller room possibly even that used for the storage and display of apparatus. The size of this room would depend on whether it was decided to display standard as well as sub-standard apparatus. If sub-standard apparatus only was to be displayed, a room as large as an ordinary classroom, furnished with glass cases on the eye-level round two or three walls and a few solid tables in the centre, would, as far as one can now judge, be amply large enough. If every model now available in Great Britain was displayed there might be some 30 odd machines on show, of which only the sound reproducing models of which there are about a dozen would take up space. If it was desired to include 35 mm models, for purposes of inspection only, the same room would probably still be large enough, because nowadays hardly any 35 mm models are de-

signed which do not stand on their own pedestals, so that floor space only would be involved.

But were it desired not only to display the projector but also to undertake actual projection from a variety of full-sized machines the mechanical problem involved would be of some magnitude, and I think it would be found more practical to limit the apparatus actually demonstrated in action to sub-standard, and perhaps transportable 35 mm sets.

The problem of coaxing a large number of theatre-projectors in succession up to a limited number of projection-ports seems to me to possess no simple solution.

But fortunately, — and perhaps unusually — the point of greatest difficulty seems

in this particular case to co-incide with the point of least necessity. The performance of transportable sets is already of so high a standard that I think there will be very few educational users who will pass them over and insist upon obtaining full size theatre-installations.

Finally I should like to return to the point which I stressed at the outset, that my aim in outlining this scheme is to enable our Film Institute to avail itself of suggestions and criticism from an assembly whom we feel ourselves very fortunate in having this opportunity of consulting — an assembly whose advice will, we feel, be indispensable to us in planning these projects along those really practical lines which alone ensure their success.



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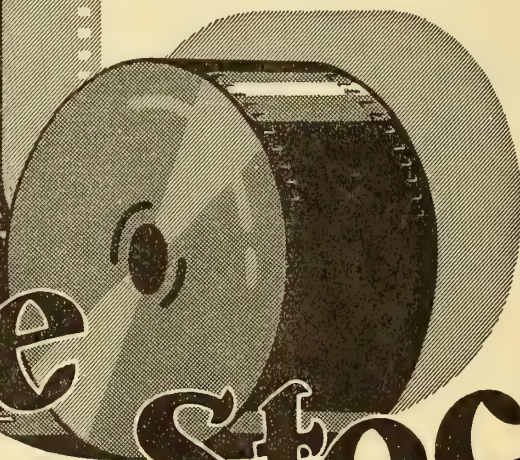
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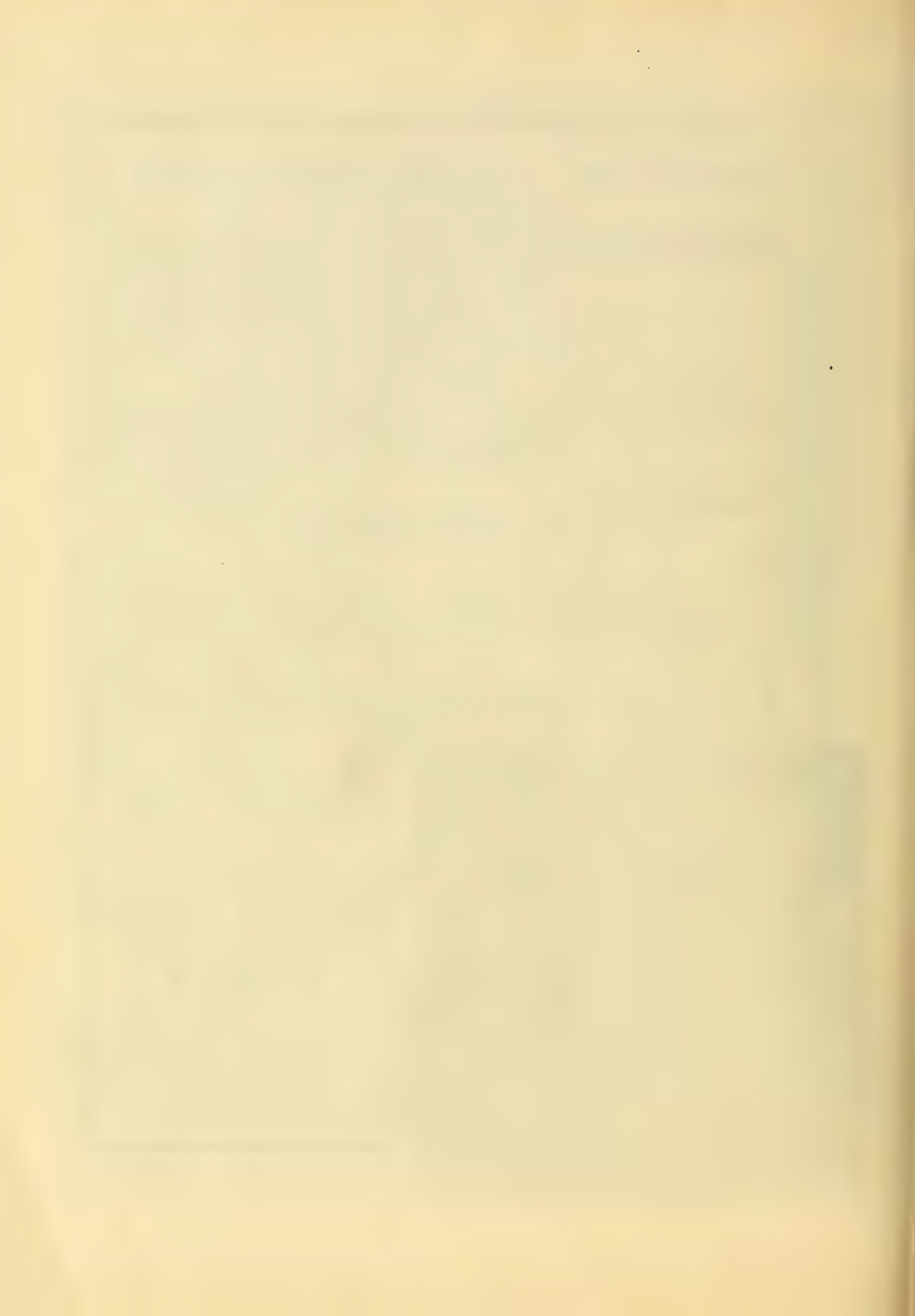
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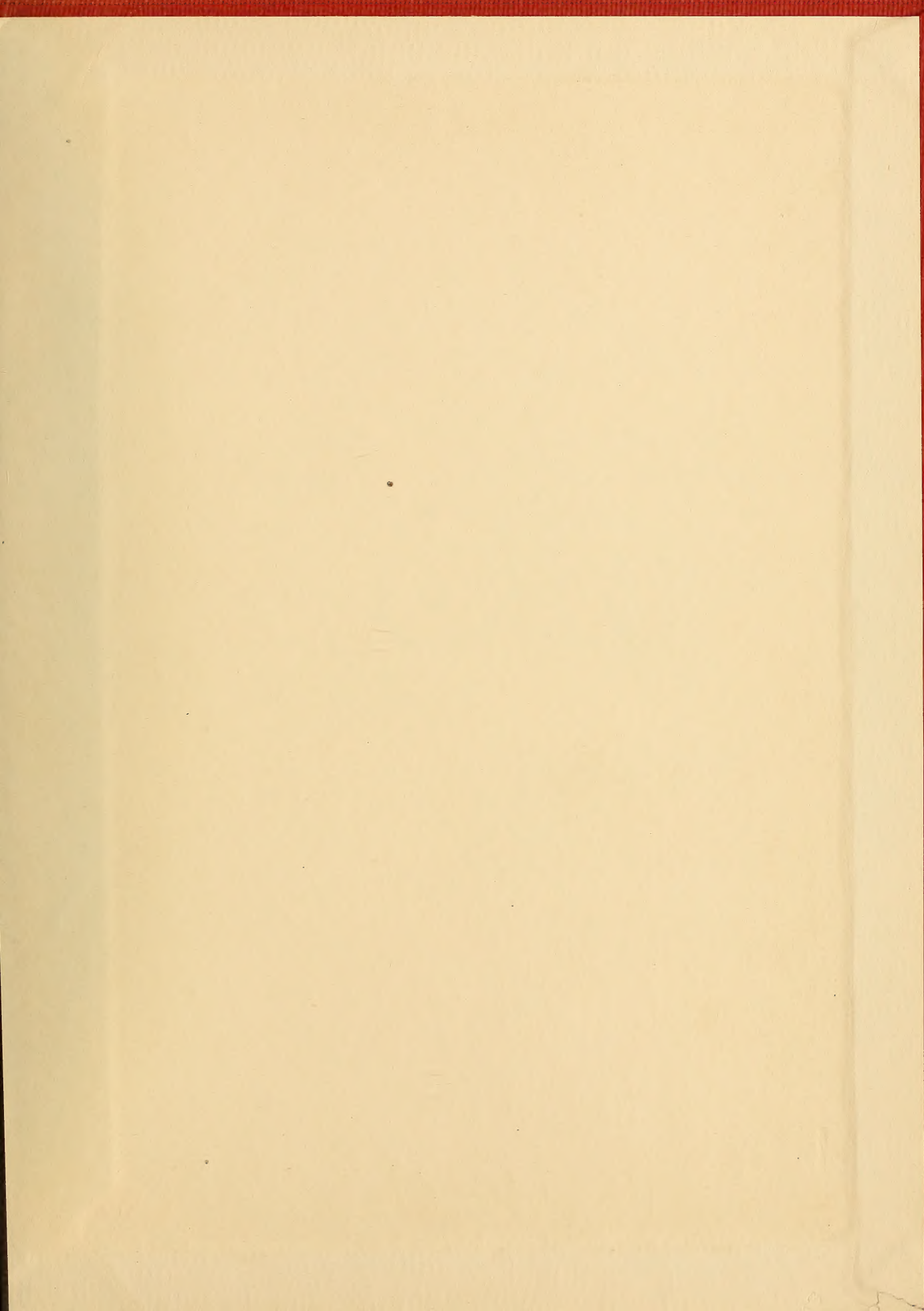
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